EXHIBIT 3

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Page 1
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               WILLIAM J. VIGILANTE, JR.
 2
      IN THE UNITED STATES DISTRICT COURT FOR THE
 3
    WESTERN DISTRICT OF TENNESSEE WESTERN DIVISION
5
    GARY BRYAN BRACKIN,
     individually and in his
    capacity as Surviving
     Spouse of PAMELA W. BRACKIN,:
7
    Deceased,
               Plaintiff,
8
          vs.
9
    MEDTRONIC, INC., et al.,
10
               Defendants. : No. 2:17-cv-2101
11
12
                   September 14, 2018
13
14
          Videotape deposition of WILLIAM J.
15
    VIGILANTE, JR. taken pursuant to notice held at
16
    the Law Offices of Williams Cedar, LLC, 1515
17
    Market Street, Suite 1300, Philadelphia,
    Pennsylvania 19102, commencing at 10:07 a.m.,
18
19
    on the above date, before Jennifer P. Miller,
20
    RPR, CCR, CRR #30XI00235100 and Notary Public.
21
22
23
    Job Number: 147847
24
25
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	Page 2		Page 3
1	WILLIAM J. VIGILANTE, JR.	1	WILLIAM J. VIGILANTE, JR.
2	APPEARANCES:	2	THE VIDEOGRAPHER: This is the
3	KEVIN HAVERTY, ESQUIRE	3	start of DVD number one of the video
4	WILLIAMS CEDAR	4	recorded deposition of William Vigilante
5	8 Kings Highway West	5	in the matter of Gary Bryan Brackin, et
6	Haddonfield, NJ 08033	6	al. versus Medtronic, Inc., et al. in the
7	Counsel for Plaintiff	7	United States District Court for the
8		8	Western District of Tennessee, Western
9		9	Division, the docket number is
10		10	217-CV-2101.
11	CLIFF MERRELL, ESQUIRE	11	This deposition is being held at
12	GREENBERG TRAURIG	12	William Cedar, LLC in Philadelphia on
13	Terminus 200	13	9/14/18 at approximately 10:07. My name
14	333 Piedmont Road, NE	14	is Dan Dickerson. I'm the Legal
15	Atlanta, GA 30305	15	Videographer Specialist from TSG
16	Counsel for Defendants	16	Reporting. The Court Reporter is Jennifer
17		17	Billstein-Miller in association with TSG
18		18	Reporting. Will counsel please introduce
19	ALGO PREGENTE P. P. L.	19 20	yourselves.
20	ALSO PRESENT: Dan Dickerson, Videographer	21	MR. HAVERTY: Good morning.
21		22	Kevin Haverty, William Cedar, for the
22		23	Plaintiff.
23 24		24	MR. MERRELL: Cliff Merrell on
25		25	behalf of Defendants Medtronic, Inc. and
25		23	Medtronic MiniMed, Inc.
	Page 4		
	rage r		Page 5
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Page 6 Page 7 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. And what have you brought with you 3 3 today? (Whereupon, Exhibit 1 was marked for identification.) 4 A. I brought a disc that contains the 5 5 _ _ _ responses for -- from the -- the notice. 6 6 Q. Anything in addition to the disc? BY MR. MERRELL: 7 7 A. I brought a copy of everything that's Q. I should have a copy of everything, 8 8 Mr. Vigilante. But if I don't I'll let you on the disc except for the medical records on 9 9 know, Mr. Haverty. my laptop. 10 10 And this document, Exhibit 1, is Q. Okay. And I have a, which I'll mark 11 11 in a moment, I have a thumb drive of materials the Notice of Videotape Deposition. I believe 12 you just referenced it. Is this a document you 12 that were provided to us along with your expert 13 13 reviewed in preparation for your deposition? report. 14 14 A. Yes. Do you know whether or not the 15 15 Q. Okay. And there are a number of materials you were provided, the date your 16 16 report was issued on July 31st, 2018, are those document requests beginning on page six; do you 17 the same materials that are on the disc, or do 17 see that? 18 you think there are some materials on the disc 18 A. Yes. 19 in addition to that? 19 Q. And they're itemized one through 26 20 with various letter subparts; do you see that? 20 A. I'm not sure what's on the thumb 21 21 drive, but I'm going to guess that there's A. Yes. 22 additional documents on the disc. 2.2 Q. And have you endeavored to collect 23 O. Do you know whether or not that 23 and bring with you today the materials 24 24 you've been provided with any documents or requested in the deposition notice? 25 depositions following the issuance of your 25 A. Yes. Page 8 Page 9 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 expert report on July 31st, 2018? A. Not that I can recall. 3 3 A. Yes. Q. Now, you mentioned several -- several 4 4 Q. And what depositions or documents do depositions and I want to start with each one. you believe you've been provided since then? 5 5 The Luci Brackin deposition, have you reviewed 6 A. I know I received the deposition of a 6 that deposition since receiving it? 7 7 Luci Brackin, a Kristin Bettis and a Rita A. Yes. 8 8 Weaver. Q. The Kristin Bettis deposition, have 9 9 Q. Have you been provided any other you reviewed that deposition? 10 depositions or documents you see there on your 10 A. Yes. 11 11 laptop? Q. And the Rita Weaver Goidel, have you 12 12 A. The only one that's -- may not be on read her deposition as well? 13 13 the USB drive that's on here is the deposition A. Yes. 14 of I believe Antatoly Aleksandrovich. I 14 MR. MERRELL: I'm going to mark 15 initially had that deposition and then somehow 15 as Exhibit 2 a copy of the CD. If you 16 16 or another I lost it in the file and I was sent just hand it to me, I'll get a copy made 17 17 another copy of it recently. of this for part of the exhibits. During 18 O. Okav. Any other documents or 18 the break, I'll see if I can access it, 19 depositions you can think of that you have 19 although I don't have a CD drive. 20 20 received since July 31st, 2018? Not everyone has switched to 21 21 thumb drives, Kevin. A. I believe I received the affidavit of 22 Jane Hartley after writing -- after drafting my 22 - - -23 23 (Whereupon, Exhibit 2 was 24 24 Q. Okay. Anything else you can think of marked for identification.) 25 25 that you received since July 31st, 2018?

Page 10 Page 11 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 BY MR. MERRELL: A. I did. 3 3 Q. You said yes? O. You mentioned your preparation for 4 the deposition. A couple of follow-up 4 A. Yes. 5 5 questions about the notice. Q. And are those on a CD or are they 6 6 We have a copy of your CV from hard copy? 7 7 your expert report on July 31st. Has your CV A. I brought a copy on the CD. I 8 8 been updated at all since then? brought a copy on my computer. 9 9 Q. Okay. And would you be able to A. Do you have a date on the CV? 10 10 access a copy of those billing records if I MR. MERRELL: Why don't we go 11 11 need to ask you questions later? ahead and mark it as an exhibit. Mark as 12 12 Exhibit 3 a copy of the Curriculum Vitae A. Sure. 13 13 we have for Dr. Vigilante. O. Okay. Outside of the CD you 14 14 provided, are there any other materials that - - -15 15 (Whereupon, Exhibit 3 was you've relied upon or reviewed in coming to 16 16 marked for identification.) your opinions in this case? 17 17 A. Yes. - - -18 18 O. What would those be? BY MR. MERRELL: 19 19 Q. I'll hand that to you. It appears to A. Number one off the top of my head is 20 be dated February 25th, 2018. 20 my experience during my investigation of the 21 Do you have any more up-to-date 21 Dennert matter, Rachel Dennert matter; number 22 CV than the one that's been provided here? 22 two, my general education, training and 23 A. That's my current CV. 23 background with respect to human factors, 24 Q. Have you brought with you any 24 product design and to design an assessment of 25 invoices or billing materials at all? 25 product warnings and instructions. Page 12 Page 13 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. Anything else you can think of, the A. I think the only other specific 3 3 documents or literature or guidances? reference that I included in the CD was the 4 4 A. Not offhand. 2016 version of the FDA's medical applying 5 5 human factors and usability engineering to O. You do have a number of references in 6 6 medical devices. I think that's the only other your report, which we'll get to later in the 7 7 deposition, of guidances and literature. Are specific references -- reference that I 8 8 those on the CD you provided as Exhibit 2 today included that's not noted in my report. 9 9 as well? Q. Okay. And we'll get to this later. 10 10 But in your report, the guidance you relied A. Yes. upon, was it the 2000 version for human factors 11 Q. Is there any other literature or 11 12 12 that the FDA issued? guidances or other documents you relied upon in 13 13 coming to your opinions outside of those that A. I believe it's 2000. 14 are referenced in your CV -- I'm sorry, those 14 Q. Did you --15 that are referenced in your report and those 15 A. Yes, I'm sorry. 16 16 that are on the CD Exhibit No. 2? Q. I'm sorry, I didn't mean to cut you 17 17 A. I'm not sure I understand what you're off. 18 18 asking me. A. It's okay. 19 19 Q. Was it the 2000? Q. Okay. I'll try to ask it a different 2.0 2.0 way. A. Yes. 21 21 Are you -- are you relying upon Q. Did you -- and you since provided the 22 22 any other literature or guidances at all in 2016 guidance, are you relying upon that in any 23 23 coming to your opinions here that would not respect in coming to your opinions here? appear on your expert report or on the CD you 24 24 A. Not necessarily. 25 25 provided today which we marked as Exhibit 2? Q. Have you conducted any sort of

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WILLIAM J. VIGILANTE, JR. testing or experimentation at all in this case to come to your opinions?

A. I did.

- Q. What sort of testing experimentation did you conduct?
 - A. I tested my opinions.
 - Q. And how did you do that?
- A. What I did was, I started with essentially applying the scientific method to the different questions I was asked to address. So after talking with Mr. Haverty, we agreed on certain areas that I would look into.

I had done preliminary research, again, based upon my prior experience in the matter. Using that and some other preliminary investigation I created, I came up with three questions that I wanted to address. They are listed in my report. The first is whether or not Medtronic conducted an adequate human factors analysis of its product and whether its failure to do so caused or contributed to Pamela Brackin's injury and death; whether Medtronic provided adequate instructions and warnings with its Paradigm reservoir and

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WILLIAM J. VIGILANTE, JR. infusion set regarding the hazard associated with the potential lockage of the P-Cap connector vent. And then the last hypothesis was whether Medtronic, whether their failure to provide adequate instructions and warnings regarding the hazard associated with the potential blockage of its P-Cap connector vent was improper in the manner which caused or contributed to Ms. Brackin's injury and death.

So for the first, I looked at whether or not there was a hazard associated with the use -- foreseeable use, I should say, of the P-Cap connector, the infusion set, the reservoir, et cetera. Based upon information from discovery information provided in the case, specifically Randy Adair and some of the other information that was produced, I concluded that there was, in fact, a hazard associated with the unattended delivery of insulin resulting from the blockage of P-Cap connector vents.

The second thing I looked at is whether Medtronic conducted a proper risk and human factors analysis. So one of the first

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things I did was I looked at the standard of care for both product design, development and the design development of medical devices to see what was the standard of care for product designers such as Medtronic and designing and developing a product such as the P-Cap connector, the reservoir and -- and the infusion set.

So I lay out those specific steps and specific requirements in my report under section E2. Then using the discovery material provided in the case, I looked at what Medtronic had done both when they were developing the product in the 1990s, late '90s, early 2000s and up to Mrs. Brackin's event, and compared them, tested them against the standard of care, and found that they were, in fact, deficient. Again, that's noted through section E2 in my report.

Based upon my testing of my apotheosis, I came to my opinions with respect to that topic. I then looked at questions related to -- issues related to failure to warn and instructions. Again, that's laid out in

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section E3 in my report.

What I looked at again was the standard of care for the design and development of warnings and instructional material. I looked at the information provided by Medtronic, both pre and post-2013, including the Getting Started Guide that was relied upon by the Brackins in using the -- using the product.

I tested what Medtronic had done based upon their records, deposition testimony, to the standard of care, and came to my opinions with respect to that topic.

I then looked to see whether or not adequate instructions and warnings could have and should have been designed in development, and I addressed that in section E4 in my report. To do that, I looked at what the standard of care was for the design and development again of warnings and instructions, and developed an alternative warning and instructions set based upon those standards, guidelines and recommendations, and then came to my conclusions with respect to that topic.

Page 18 Page 19 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. Okay. And that information you just another question. Have you handled an exemplar 3 3 provided in your testimony, is that all of the reservoir at issue in this case? 4 included in your expert report? 4 A. I have examined an exemplar of the 5 5 A. Yes. reservoir infusion set. I don't know that they 6 Q. Have you ever handled a Medtronic 523 6 were the specific batch or model number of the 7 7 insulin pump? one used by Mrs. Brackin. 8 8 A. I don't know if I handled the 523 Q. And when did you -- when did you do 9 9 insulin pump, but I handled a similar insulin that? 10 10 pump in my investigation of the Dennert matter. A. Through my investigation of the 11 And I don't recall exactly which model number 11 Dennert matter. 12 it was, but it was a similar pump. 12 Q. So since the Dennert matter, have you 13 Q. Since handling the insulin pump 13 handled an insulin pump infusion set or 14 involved in the Dennert case, have you handled 14 reservoir? 15 another insulin pump at all? 15 A. I have not. 16 A. I have not. 16 Q. In this specific case, did you 17 Q. Have you handled the reservoir at 17 conduct any sort of experimentation with an 18 18 issue in this case? insulin pump or reservoir or infusion set -- I 19 A. The specific reservoir issue in this 19 assume not since you haven't handled them since 20 case, I was not provided with. 20 then? 21 Q. Have you handled the specific 21 A. The only experimentation I do is look 22 infusion set at issue in this case? 22 through the user guides, Getting Started Guides 23 A. I have not. I'm not aware of them 23 and IFUs to understand how they worked to 24 being available. 24 ensure that they were similar to my experiences 25 Q. All right. And I'll probably ask 25 in the Dennert case. Page 20 Page 21 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 2 Q. Okay. And when you went through used in the past? 3 3 those, I take it, though, in this particular A. For the user pump, I did. I did 4 4 case you didn't utilize an insulin pump, not -- I do not recall having a Getting Started 5 reservoir, infusion set? 5 Guide in the Dennert matter. 6 6 A. I did not physically interact with or Q. And when you reviewed the Getting 7 7 handle a reservoir, infusion set or pump in my Started Guide, did you utilize the version that 8 8 investigation of this case. I relied upon my Plaintiff actually had and produced with 9 9 experience in the Dennert matter. highlighting in it? 10 10 A. I had a copy, but I don't believe I I need to append that answer. 11 11 Also, I relied upon my review of the relevant have the original, but I had a copy of it. 12 Getting Started Guide, pump User Guide and IFUs 12 Q. I asked you earlier about what you 13 for the infusion set and reservoir to ensure 13 did to prepare for your deposition. I wanted 14 that they, with respect to the topics I was 14 to break that down a little bit. 15 15 addressing, were the same. Part of the preparation you did 16 16 Q. And just kind of break that down, did for this deposition was speaking with 17 you -- are you saying that you looked at the 17 Mr. Haverty; is that correct? 18 specific infusion set and reservoir IFU in this 18 A. Yes. 19 case and compared them to ones you reviewed in 19 Q. When did you speak with Mr. Haverty 2.0 20 the past? in preparation for the deposition? 21 21 A. I did. A. Yesterday. 22 Q. Okay. And did you look at and review 22 Q. How long did you speak with 23 23 the User Guide and Getting Started Guide for Mr. Haverty? 24 the insulin pump here to compare it to prior 24 A. I'm going to approximate between 15 25 25 getting started guides and user guides you've minutes and a half hour.

Page 22 Page 23 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. Was that the only time you spoke with (Whereupon, Exhibit 4 was 3 3 Mr. Haverty to prepare for this deposition? marked for identification.) 4 A. I believe -- I believe so. 4 5 5 Q. Did you speak with anyone else to BY MR. MERRELL: 6 prepare for the deposition today? 6 Q. Do you understand you were disclosed 7 7 A. I did not. as an expert on behalf of the Plaintiffs on 8 8 O. And did you spend any time reviewing July 31st, 2018? 9 9 materials or documents to prepare for the A. I don't know what date I was 10 10 deposition today? disclosed, but it was my understanding that I 11 A. Yes. 11 would be. 12 Q. How long do you think you spent to do 12 Q. Do you recall when you were first 13 13 contacted regarding this case by Plaintiff's that? 14 14 A. In total, yesterday I probably spent case? 15 A. Not offhand. 15 a little over three hours. 16 16 Q. Did you spend any time prior to Q. Do you know who initially contacted 17 17 yesterday preparing for the deposition? you about this case for Plaintiffs? 18 18 A. I think it was Mr. Haverty, I'm A. I don't recall. 19 19 MR. MERRELL: I'm going to mark pretty sure it was. 20 as Exhibit No. 4 and hand to you an email 20 Q. Do you know if it was this calendar 21 21 year, was it in 2018? and letter provided by Mr. Haverty on 22 22 July 31st, 2018 disclosing you as an A. Offhand, I don't know. 23 23 expert. Q. Do you have your billing records 24 24 available? I have a copy for you. 2.5 25 A. Yes. Page 24 Page 25 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. When is the first notation you have the inquiry for the case was in June of 2018. 3 3 for time you spent on this case? Q. And what do you mean by "inquiry"? 4 4 A. It looks like July 23rd, 2018. A. When Mr. Haverty called to speak 5 5 Q. And how much time did you bill that specifically to me about the case. 6 6 Q. So you were first contacted about day? 7 7 this case in June of 2018; is that accurate? A. Just about an hour. 8 8 Q. Do you know if that was reviewing the A. Yes. 9 9 file or speaking with somebody? Q. And you were contacted by 10 10 Mr. Haverty? A. Both. 11 11 Q. And who did you speak with that day? A. Specifically, regarding this case, 12 12 A. Mr. Haverty. 13 13 Q. So prior to July 23rd, 2018, you did O. How much time did you spend on this 14 not perform or conduct any work in this case; 14 case between July 23rd and July 31st to prepare 15 15 your expert report? is that accurate? 16 16 A. Nothing that I billed for. A. One more time? 17 17 Q. Do you believe that you conducted any Q. How much time did you spend to 18 activities or work prior to July 23rd, 2018 18 prepare your expert report between July 23rd, 19 that you did not bill for? 19 2018 and July 31st, 2018? 2.0 20 A. I would have spoken with Mr. Haverty A. So it looks like the total time I 21 21 about the case prior to that. billed for is 7.75 hours or thereabouts. 22 22 Q. Okay. What amount of time, if any, Q. Okay. So the total time you spent in 23 23 do you believe you would have spent on this preparing your expert report in this case was 24 24 about 7.75 hours; is that correct? case prior to July 23rd, 2018? 25 25 A. I don't know. I can tell you that A. No.

Page 26 Page 27 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. Okay. And can you explain that. A. I do not. 3 3 A. That's the time I billed. Q. Do you have an estimate of about how 4 Q. Okay. So the total time that you 4 much time you spent on this case since that 5 5 bill on July 31st, 2018? billed in preparation for your expert report in 6 this case is 7.75 hours; is that correct? 6 A. I know it's more than a little over 7 A. As of July 31st, 2018, that's 7 three hours, but I don't know where the high 8 8 correct. end is. 9 9 Q. What is the -- in your -- in your Q. Is it less than ten hours; do you 10 10 billing information that you have in front of think? 11 you, what is the last date that you have there 11 A. I don't know. 12 12 for time you've either billed or time that Q. Following the issuance of your report you've noted as time to bill? 13 13 on July 31st, 2018, what work did you do in 14 14 this case? A. Bill time, the last entry was 7/31/2018. 15 15 A. There were additional depositions 16 16 Q. And did you send that bill to that were provided to me. I think I mentioned 17 17 them a little earlier in the deposition. Those Mr. Haverty? 18 18 included exhibits. So other than reviewing A. Yes. 19 19 Q. After July 31st, 2018, have you kept those documents and preparing for the 20 records of how much time you spent in this 20 deposition, I don't have a specific 21 21 recollection of what other work I may have 22 22 A. I would have logged time that I spent done. 23 23 on this case since then. Q. And your review of information and 24 Q. Do you have those in front of you or 24 depositions since the issuance of your report 25 25 on July 31st, 2018, has that changed or altered available to you? Page 28 Page 29 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 2 anything that you put in your expert report the Luci Brackin deposition, the Weaver 3 3 deposition and the Bettis deposition? initially? 4 A. A complete list of what? 4 A. It did not. 5 5 Q. Of the materials that were available MR. MERRELL: I'm going to mark 6 as Exhibit 5 the copy I have of your 6 for you to review to provide your opinions. 7 7 A. Specifically, for this case, I expert report. 8 8 believe so. 9 9 (Whereupon, Exhibit 5 was Q. I notice your -- the list of 10 marked for identification.) 10 deposition transcripts, I don't see the 11 11 deposition transcript of Afshin Bazargan; is 12 12 that a deposition you reviewed as part of this BY MR. MERRELL: 13 Q. And I'll ask you a few questions and 13 case? 14 then I want to turn to your CV and I'll come 14 A. I don't believe so. 15 back to this, but I'm just trying to cover and 15 O. I also don't see Suzanne 16 address all of the materials you reviewed as 16 McConnell-Montalvo; is that one you reviewed as 17 part of this case. 17 part of your review in this case? 18 Can you look at page three of 18 A. I don't know if that one was -- I've 19 your report. 19 included it in my file. I had reviewed her 20 2.0 A. Sure. deposition dated June 23rd, 2015. I don't know 21 Q. There's a list of available materials 21 why I didn't include it in my material 22 on page three; do you see that? 22 available. 23 A. Yes. 23 O. Okay. So although it's not included 24 Q. Is this list a complete list if you 24 in the available materials, that is one you 25 add the more recent depositions you received, 25 have reviewed?

Page 30 Page 31 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 A. I had reviewed, yes. Q. Do you know about how much time you 3 3 Q. Have you reviewed the deposition of spent looking at medical records? 4 Dr. Gosmanov? 4 A. I do not. 5 5 A. I don't believe I have. O. Do you think it was less than three 6 6 Q. You also list under Available hours? 7 7 Materials, various medical records; do you see A. I would imagine so. 8 8 that? Q. Do you think it was less than an 9 9 A. Yes. hour? 10 10 Q. Do you have -- do you know if you A. I -- probably. 11 have a complete set of medical records in this 11 Q. Were you given any guidance at all as 12 case? 12 to particular materials, depositions to focus 13 13 on in this case? A. I do not know that. 14 14 Q. Which medical records do you believe A. Well, I imagine that the ones that 15 15 were provided with I was supposed to -- well, I you've reviewed? 16 16 A. I don't recall exactly what medical don't know what Mr. Haverty's intent was. 17 17 records there were. I did not include them on But the material that I was 18 18 my laptop because they were rather -- there was provided with is the stuff I looked at. Other 19 19 a lot of them, but I did include them on the than the various medical records, I typically 20 disc. 20 don't get involved in pinnacle issues related 21 21 to pre and post-treatment. Q. Sorry, keep going. 22 22 Q. With respect to the deposition, did A. So I don't recall spending any great 23 23 you read every page of the depositions you were amount of time and energy going through all of 24 her medical records regarding pre and 24 provided? 25 post-incident treatment. 25 A. I skimmed Antatoly's current Page 32 Page 33 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 deposition, so I can't say that I got every A. I have. 3 3 Q. Have you reviewed all of Randy page. 4 4 Q. What about the Vardi deposition, did Adair's deposition? 5 5 A. Yes. you -- have you reviewed every page of that? 6 A. I don't recall at this point. 6 Q. Now, with respect to the medical 7 7 Q. And the -- this recent Anthony records, were there certain ones that you were 8 8 Vicente's deposition, did you review every page asked to focus on or look at? 9 9 of that? A. I don't recall being asked to look at 10 10 or focus on any specific medical records. A. I can't recall if I had done that 11 11 either. Q. How did you determine which medical 12 12 records to look at or review? Q. Do you know if you reviewed all of 13 13 Mr. Brackin's deposition? A. I opened the files to see what they 14 14 were addressing, and if I didn't find them A. Yes. 15 Q. Do you know if you read all of 15 relevant, I didn't spend a great time --16 Mr. Duarte's deposition? 16 great -- great amount of time looking at them. 17 17 A. John Duarte, I had. Q. Were there any particular medical 18 Q. Okay. Have you reviewed all of Karen 18 records that were important to your opinions 19 Fisk's deposition? 19 that you reviewed that you can think of? 20 20 A. I don't recall certainly everything A. I have. 21 21 Q. And have you reviewed all Mark that was in there. I recall either between the 22 22 Curtis's deposition? depositions and maybe some of the medical 23 23 records identifying when Mrs. Brackin was A. I have. 24 24 recommended to use the subject pump, when she Q. And have you reviewed all of the Rabi 25 25 Gharabli deposition? began using the subject pump, but other than

Page 34 Page 35 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 that, I don't recall seeing anything relevant. Q. I wanted to turn back to your CV. I Q. Have you reviewed the testing that 3 forgot what we marked it as an exhibit. I 3 4 Medtronic conducted on the insulin pump, the 4 think it may be four. 5 5 reservoir and the infusion set in this case at A. Three. 6 6 Q. And first of all, what is your hourly all? 7 7 rate you're charging? A. What kind of testing? 8 8 Q. Well, I'll represent to you that A. My current hourly rate is 395 an hour 9 Medtronic conducted testing specifically 9 for all case-related work, except for 10 10 looking at the functionality of the insulin videotaped testimony, which is I charge at 495 pump at issue here, Ms. Brackin's insulin pump, 11 11 an hour. 12 12 the reservoir and the infusion set. And I'm Q. And the videotape deposition, do you 13 13 charge that \$495 an hour as, as a premium or asking whether or not that's testing -- the 14 14 results of the testing is something you above if it was not videotaped; is that 15 15 reviewed in coming to your opinions? accurate? 16 16 A. Is that post-incident testing? A. If it was a non-videotaped 17 Q. This testing would have been 17 deposition, it would be 395 an hour. 18 18 post-incident, ves. Q. And turning to your CV, what is 19 19 A. Nothing is coming to mind at the the -- what is the current company you work at? 20 moment. 20 A. I work technically for Vigilante 21 21 Consulting, LLC. Q. And perhaps, I don't know if this 22 22 will jog your memory or not, but the testing Q. And I notice that your CV says 23 was conducted in May of 2017. Is that anything 23 Vigilante Forensic. Is there a distinction at 24 that sounds familiar as something you reviewed? 24 all? 25 A. I don't recall that material offhand. 25 A. Well, legally, Vigilante Forensic is Page 36 Page 37 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 the work you've done with Vigilante Forensic -doing business as Vigilante Consulting, LLC, so 3 3 it's registered with the state as a d/b/a. well, strike that. Let me ask it a different 4 4 Q. And prior -- well, strike that. way. 5 5 Did you begin the Vigilante Would you say that your work 6 Consulting, LLC in 2015? 6 since you started Vigilante Consulting in 2015, 7 7 that 95 percent of your -- 95 percent plus of A. Yes. 8 8 Q. And your work for Vigilante your work has been litigation consulting as an 9 9 Consulting, has that all been litigation work? expert? 10 10 A. No. A. Under both Vigilante Consulting and 11 11 Q. Okay. What other work have you done Vigilante Forensic, it's probably about that. 12 with Vigilante Consulting? 12 Q. Have you done any consulting for any 13 13 A. So I run the forensic investigation medical device companies since 2015 with 14 side of the business through Vigilante 14 Vigilante Consulting? 15 15 Forensic. I run traditional consulting through A. I have not. 16 16 Vigilante Consulting, LLC. Q. Prior to your work with Vigilante 17 17 Consulting, were you at Robson Forensic? Q. With respect to the Vigilante 18 Consulting, how much work have you done that's 18 A. Yes. 19 non-litigation consulting? 19 Q. And were you there from 2003 to 2015? 2.0 20 A. It's probably, depending upon what A. Correct. 21 21 projects I am or not involved in, a small part Q. And your title there was associate? 22 of overall work. 22 A. That's my understanding. 23 Q. Okay. Would you say that the 23 Q. Were you ever made a principal there? 24 litigation consulting you do that is serving as 24 A. No. 25 25 an expert report, is that 95 percent plus of Q. The work you did at Robson Forensic,

Page 38 Page 39 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 was it similar to the work that you're doing practice group, so I had a lot of 3 3 now at Vigilante Consulting and Vigilante responsibilities related to peer reviewing 4 4 Forensic? other people's work, hiring and -- and so forth 5 5 with regard to other human factors, experts A. Yes. Q. While you were at Robson Forensic 6 6 promoting the practice, billing the practice, 7 7 from 2003 to 2015, was the amount of litigation et cetera. So it was a lot of non-billable 8 8 expert work you did, was that 90 to 95 percent time related to those two other titles or 9 9 of the work you did? positions. 10 10 A. I think over time, over the -- I Q. What is your approximate income then 11 don't know how long I was there, 13 years or 11 with Vigilante Consulting over the last year? 12 12 so, approximately, that's what it was A. I don't know offhand. 13 13 Q. You don't have any estimate at all? approximately. That was billable time. 14 14 Q. And you say "billable time," would A. I don't have a good estimate, and 15 there have been non-billable time where you 15 it's confidential, so I can't provide it even 16 16 prepared proposals, or what would the if I did have an estimate. 17 17 Q. So the figure itself would be non-billable time be? 18 18 A. Partly that. I also was an area confidential? 19 19 manager for the company for approximately the A. Yes. 20 last five years I was with them, so I had 20 Q. Even without regard to where the 21 managerial responsibilities over the 21 income came from? Philadelphia office, including employment, 22 22 A. Yes. 23 marketing, et cetera. 23 Q. Your work with -- well, strike that. 24 I was also the area -- or the 24 Prior to Robson Forensic, you 25 practice group leader for the human factors 25 were at A-R-C-C-A; is that correct? Page 40 Page 41 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 A. So it's a little bit confusing. If A. I was an independent contractor for a 3 you allow me, I can explain it. 3 company called ARCCA, A-R-C-C-A. 4 Q. Yeah, absolutely. 4 Q. And what sort of work did you do at 5 5 A. Okay. So I worked for the IBM ARCCA? 6 6 Corporation from 1997 until July 2003 when I A. Forensic investigations. 7 Q. Was that also primarily litigation 7 left IBM to join Robson Forensic, slash, Robson 8 8 work? Lapina at the time. 9 9 A. I believe so. You know, I don't In approximately 10 remember every project I did for -- for ARCCA, 10 August/September 2001, while I was employed by 11 11 IBM, I worked for ARCCA as an independent but they were all forensic related. Whether or 12 not they were all in litigation, I can't say, 12 contractor, essentially, moonlighting with the 13 13 permission of my management staff at IBM, doing but I don't recall. forensic consulting. So my time at ARCCA 14 Q. Was 95 percent plus of the work you 14 15 15 did at ARCCA, was it litigation work? overlapped my time at the IBM Corporation, and 16 16 my time at ARCCA ended also when I joined A. I have no idea. 17 17 Robson Forensic in July 2003. Q. So I guess it was a long time ago. 18 18 And then prior to that you worked at Q. Your litigation work you've done over 19 19 International Business Machines Corporation the years for these various entities, do you 20 2.0 have a percentage that was plaintiff versus from 1998 to 2003? 21 21 A. No. defendant that you can think of? 22 Q. Well, I'll just ask you a non-leading 22 A. Historically, it's probably about 23 23 60/40, plaintiff/defendant. auestion. 24 24 Did you work -- prior to ARCCA, Q. The 60 percent of the work

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did you work at IBM?

historically has been for the plaintiff?

Page 42 Page 43 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 So you've never been asked by a A. Yes. 3 3 Q. Since you started Vigilante Forensic, medical device company to write labeling, for 4 example, or instructions? 4 has the same held true? 5 5 A. I can't say it's exactly the same, A. I have not. 6 6 but it's approximately. I think maybe about 65 Q. And you've never been asked by a 7 7 plaintiff, 35 defendant with Vigilante medical device company to prepare warnings for 8 8 Consulting or Vigilante Forensic. a medical device? 9 9 Q. I take it you've never worked for a A. I have not. 10 10 medical device company? Q. You've never been asked by a medical 11 A. Not that I'm aware of. 11 device company to evaluate their warnings, 12 12 O. And you never worked at the FDA? labeling or instructions? 13 13 A. I don't believe so. A. I have never worked at the FDA. 14 14 Q. And you've never done any consulting Q. And you've never been asked by the 15 FDA to evaluate the warnings, labeling or 15 for the FDA regarding medical devices? 16 16 instructions of a medical device? A. Not with regard to medical devices, 17 17 with regard to prescription and A. I don't believe so. 18 18 non-prescription medication labeling. So I have to amend one or two of 19 19 Q. But no work with the FDA regarding those answers. With regard to a medical device 20 medical devices: is that accurate? 20 company and whether I've been asked to either 21 21 draft or assess their warnings and A. That's correct. 22 22 Q. And have you ever done any consulting instructions, I don't know. I can't say that I 23 23 at all for a medical device company? haven't. 24 24 A. Not that I'm aware of. In my research during graduate 25 25 school, we were doing work for the Drug Q. Have you ever -- strike that. Page 44 Page 45 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 2 Information Association. I can't say that the laboratory at North Carolina State University, 3 3 folks that were a part of that organization I don't recall all of them. There were other 4 4 that we were interacting with were not involved medical and drug-related products that were 5 in medical device manufacturing, and part of 5 looked at and other studies that I helped with. 6 6 Q. Okay. So in this time period from that work was the research related to warnings 7 7 and instructions for medical -- excuse me, 1997 to 2001, you don't know whether it 8 8 drug-related products. involved a medical device company, correct? 9 9 O. That would have been back in You don't know whether it 10 2000/2001? 10 involved a medical device company? 11 11 A. It would have been from, I would say, A. I can't say that it didn't. 12 12 '97 to 2001. Q. Since then, have you had any 13 13 O. So this work you did from 1997 to consulting work for a medical device at all? 14 2001, you don't know whether or not it involved 14 A. Not that I'm aware of. 15 15 a medical device company at all? Q. I take it you've never been involved A. I don't recall any specific devices, 16 16 in the design process of a medical device? 17 17 but I can say it didn't. A. Not that I'm aware of. Q. Uh-hum. The work that you did, do 18 18 O. You've never been involved in a risk 19 you recall there being prescription drugs or 19 analysis for a medical device company? 20 2.0 over-the-counter drugs that you looked at? A. On behalf of a medical device 21 21 A. I know that my research specifically company, that's correct, but I have done a risk 22 focused on over-the-counter medication labeling 22 analysis of a medical device. 23 23 and prescription drug advertising. O. The risk analysis you've done for a 24 Other projects that I worked on, 24 medical device, is that on behalf of a 25 25 one that was in the cognitive ergonomics plaintiff in litigation?

Page 46 Page 47 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 A. Not that I'm aware of. A. Yes. 3 3 Q. And how many times have you done Q. And you've never been involved in a 4 4 premarket approval submission or process for a that? 5 5 medical device? A. In the Dennert matter and in this 6 one, were the only two insulin pumps that I can 6 A. I don't believe I have. 7 7 recall, and I don't recall if I've worked on Q. And you never performed a risk 8 8 another medical device matter in the -- in my analysis or design validation according to FDA 9 9 forensic practice prior. regulations? 10 Q. Okay. And the Dennert matter was 10 A. On behalf of a manufacturer, I don't around 2016? 11 11 believe so. 12 12 A. I don't recall specifically when that Q. Well, have you ever applied FDA 13 13 was, but it's at least a couple of years. regulations for any risk analysis or design 14 14 Q. Okay. Prior to the Dennert matter, verification project? 15 15 though, you can't, sitting here today, you A. I'm sorry, you're going to have to 16 16 can't think of any other medical device repeat that. 17 litigation where you were asked to analyze the 17 Q. Okay. Have you ever, in any context, 18 18 have you ever been asked to apply FDA risk or labeling of a medical device? 19 19 A. The only one that I can think of was regulations to evaluate a risk analysis? 20 an over-the-counter device for pain relief, but 20 A. I'm not sure that that question makes 21 21 I don't recall any other prescription-type sense, so I'm going to have to ask you to 22 22 medical device products offhand. rephrase it. 23 23 Q. Okay. And you've never been involved Q. Okay. Have you ever been -- have you 24 in a 510(k) application or submission for a 24 ever been asked to evaluate a specific medical 25 25 device and its potential risks and hazards medical device? Page 48 Page 49 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 under FDA regulations? wasn't planning on providing opinions regarding 3 3 A. I'm not sure what you're asking me. a regulatory requirement in this case. 4 4 So under FDA regulations that it needs to be Q. So you do not have any opinions in done during design and development, or are you 5 5 this case as to whether or not Medtronic or 6 6 MiniMed complied with FDA regulations or asking --7 7 Q. I'll rephrase. requirements? 8 8 A. I'm sorry, go ahead. A. I wasn't planning on it. Q. Sure. I'll just rephrase it. 9 9 Q. Sitting here today, you haven't 10 Well, let me ask you this: Do 10 formed any opinions that -- about whether 11 you consider yourself to be an FDA regulatory 11 Medtronic complied with any FDA regulations? 12 expert with regard to submissions of PMA or 12 A. I haven't given it any thought. So I 13 510(k) or product? 13 wasn't asked to address it and I wasn't 14 A. I do not hold myself out as an expert 14 planning on addressing it. 15 15 in regulatory submissions. Q. And I take it you're not going to 16 16 Q. Okay. Do you hold yourself out as an provide any opinions as to whether Medtronic 17 FDA regulatory expert on the design and 17 complied with FDA labeling requirements? 18 18 development process for medical device? A. I wasn't asked to look to determine 19 A. I do not hold myself out as a 19 whether or not Medtronic complied with FDA 2.0 20 regulatory expert. labeling requirements. 21 21 Q. Do you hold yourself out as a --Q. Are you --22 22 strike that. A. Regulatory requirements. 23 23 Q. Sorry, I didn't mean to cut you off. Do you hold yourself out as an 24 FDA regulatory expert in any context? 24 Are you leaving the -- that 25 25 A. In any context, I don't know. I aspect of this case, the FDA regulations and

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1	WILLIAM J. VIGILANTE, JR.	1	WILLIAM J. VIGILANTE, JR.
2	requirements, are you leaving that to other	2	
3	experts to address?	3	(Whereupon, a short recess
4	A. I'm not sure that it was a question	4	was taken.)
5	in the case. If it is, I wasn't asked to	5	
6	address it, and I don't know who is addressing	6	THE VIDEOGRAPHER: This begins
7	it.	7	DVD number two. We are now back on
8	Q. Okay. So that hasn't been part of	8	record. The video time is 11:16.
9	your analysis, whether or not Medtronic and the	9	BY MR. MERRELL:
10	medical device at issue in this case complied	10	Q. Dr. Vigilante, you have a Ph.D. from
11	with any FDA regulations or requirements?	11	North Carolina State University; is that
12	A. I have not been asked to address	12	correct?
13	whether Medtronic complied with any FDA	13	A. That's correct.
14	regulations.	14	Q. What is your Ph.D. in?
15	We've been going about an hour.	15	A. Ergonomics psychology.
16	Would you like to	16	Q. And I think you testified before is
17	Q. Absolutely.	17	it, technically, is it a doctor of philosophy
18	A take a break for a little bit?	18	at that school?
19	Q. That's fine.	19	A. Yes.
20	A. Unless there was a better point that	20	Q. And prior to that, you received from
21	you wanted to break at?	21	North Carolina State University a Master's in
22	MR. MERRELL: No, that's fine.	22	Science in Psychology and Ergonomics; is that
23	THE VIDEOGRAPHER: The video	23	correct?
24	time is now 11:05. We are going off	24	A. Yes.
25	record. This now ends DVD number one.	25	Q. And then you also have a Bachelor's
	Page 52		Page 53
1		1	
1 2	WILLIAM J. VIGILANTE, JR.	1 2	WILLIAM J. VIGILANTE, JR.
	WILLIAM J. VIGILANTE, JR. of Science and Psychology Cognitive Track at	1 2 3	WILLIAM J. VIGILANTE, JR. of ergonomics and human factors is focused on.
2	WILLIAM J. VIGILANTE, JR. of Science and Psychology Cognitive Track at University of Scranton, correct?	2	WILLIAM J. VIGILANTE, JR. of ergonomics and human factors is focused on. It's a design-based science.
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Page 54 Page 55 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 opinions in this case; is that correct? medical device, correct? 3 3 A. That is correct. A. I have not. 4 Q. And you're not going to provide any 4 Q. Are you going to be providing an 5 5 opinions in this case as to medical causation; opinion as to an alternative design for the 6 6 infusion set at issue here? is that correct? 7 7 A. I was not going to provide any A. I was not providing an opinion 8 8 opinions regarding medical causation. regarding alternative design. It's my 9 9 Q. I take it from your report -- well, understanding that there were alternatives, but 10 10 I'm not providing that -- that opinion. strike that. 11 11 Q. Okay. So I take it you would leave Your report focuses primarily on 12 12 instructions and labeling and human factors the issues of alternative designs and 13 13 alternative membrane material, for example, you issues: is that correct? 14 14 would leave that to Mr. Klimowicz and other A. It does address those issues. 15 15 Q. Are you going to be providing any experts in the case? 16 16 design opinions in this case? A. I am not addressing the design of 17 17 alternative membranes. I would assume that A. Other than the fact that the design 18 18 other experts are addressing that. allowed for -- created the potential for a 19 19 common slip or lapse to result in a Q. Okay. You're -- you're addressing 20 catastrophic injury, and therefore it should 20 instructions for use and labeling with respect 21 have been fixed through design consistent with 21 to the design components you discussed; is that 22 22 accurate? the safety hierarchy and basic design 23 23 guidelines, recommendations and basic human MR. HAVERTY: Objection. 24 factors guidelines and recommendations. 24 THE WITNESS: That is part of my 25 Q. Okay. But you never designed a 25 analysis. Page 56 Page 57 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 BY MR. MERRELL: guidances on human factors for a medical device 3 3 Q. I think you've been asked some of issued by the FDA, are you familiar with any 4 4 other FDA regulations or guidances with respect these questions before, but I just want to 5 5 to medical devices? confirm nothing has changed since your last 6 6 deposition. A. Offhand, I don't recall any. 7 Are you familiar at all with a 7 Specifically, those were the two that I pointed 8 8 design history file for a medical device? to in my report. 9 9 A. Any medical device or the specific Q. So in your report, you don't point to 10 ones involved in this case? 10 any other FDA guidances or regulations other 11 Q. Generally speaking, a design history 11 than the 2000 and 2016 human factors guidances? 12 file for a medical device. 12 A. That's correct. 13 A. I don't believe so. 13 Q. And is it correct that the first time 14 Q. Are you familiar with a medical 14 you reviewed the 2016 guidance was part of your 15 15 device history for a medical device generally? review in the Dennert case? 16 A. Not offhand. 16 A. I don't recall what my testimony was, 17 17 Q. And you don't know what regulations so whatever it was in the Dennert case, I would 18 18 govern a design history file for a medical stand by it. 19 device, correct? 19 Q. Okay. Maybe that's a good question. 20 20 A. Not offhand. Do you stand by the testimony you previously 21 21 Q. Okay. And you never maintained or provided on two separate dates for the Dennert 22 created a design history file for a medical 22 case? 23 device? 23 A. As far as I know. 24 A. Not that I'm aware of. 24 Q. You don't have any changes or 25 Q. Other than the 2000 and 2016 25 retractions at all for those depositions?

Page 58 Page 59 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 A. I certainly don't recall what specific regulation. 3 3 Q. Okay. Sitting here today, you can't questions were asked or answers that were 4 provided, but there's nothing that stands out 4 point to another regulation or guidance 5 5 relating to medical devices on labeling and that I wanted to correct on the record. 6 6 instructions for use other than those two Q. Okay. 7 7 A. At this moment. guidances we've already discussed from 2000 and 8 8 2016? Q. And I take it you don't recall ever 9 9 reviewing the 2000 and 2016 guidance on human A. Not offhand. 10 10 factors issued by the FDA prior to your Q. And are you familiar with ISO 14971 11 involvement of the Dennert case? 11 application of risk management for -- to 12 A. At this point, I don't recall. 12 medical devices? 13 13 Q. And given your answer, I take it you A. I don't recall if I've reviewed that 14 14 never reviewed the -- other than these two standard or not. 15 guidances, you never reviewed any FDA 15 Q. It's not something you've applied in 16 16 regulations on medical device labeling or this case, though? 17 17 instructions for use? A. It is not. 18 18 Q. You have applied ANSI standards in A. I don't believe that's correct, but I 19 don't recall anything specific offhand. 19 this case; is that correct? 20 20 A. I did reference a specific ANSI Q. Okay. And in what context do you 21 21 think you might have reviewed some other standard in this case. 22 2.2 regulation other than these two guidances? Q. Your references are contained on page 23 A. It may have been done in my research 23 25 of your expert report; is that correct? 24 24 for either the Dennert case or this case or A. That's correct, specific references. 25 25 O. And these references as one through another case. I don't recall offhand the Page 60 Page 61 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 11 are ones that appear as references You never performed a formal 3 3 throughout your report; is that correct? risk analysis for a medical product? 4 4 A. That's correct, they're cited in the A. On behalf of a medical device 5 5 manufacturer, I don't believe so. report. 6 6 Q. One of the -- the ANSI one I see here Q. The only risk analysis you would have 7 7 performed would be on behalf of a plaintiff in is Z535.6, product safety information on 8 8 product manuals, instructions and other a litigation; is that accurate? 9 9 collateral materials; do you see that? A. The only ones that I'm aware of would 10 10 have been done in conjunction with my A. Yes. 11 11 Q. Do you know whether or not this would investigation of a forensic -- excuse me, a 12 12 forensic investigation of an incident that apply to a medical device? 13 13 occurred involving a product, medical product. A. It was part of the standard of care 14 industry knowledge at the time that the Getting 14 Q. And would that risk analysis for 15 15 Starting Guide was manufactured and provided those circumstances for a medical device, would 16 16 with the subject pump. that have been looking at specific issues or 17 17 Q. Do you know if the FDA -- I'm sorry, the entire risk analysis for the device? 18 keep going. 18 A. Specific issues. 19 19 A. And the training of the subject pump. Q. So you haven't done a comprehensive 2.0 20 O. Do you know if the FDA utilizes the risk analysis for a medical device in any 21 21 ANSI standard you've identified here in its context? 22 22 regulation of the labeling of medical devices? A. I have not. And it's not necessary 23 23 A. Offhand, I do not. for the work that I'm doing. 24 24 Q. And you've never performed a risk --Q. Are you aware or familiar that the 25 25 strike that. insulin pump at issue in this case, the 523,

Page 62 Page 63 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 was approved by the FDA through the PMA MR. HAVERTY: He's not making 3 3 process? any judgments about safety and efficacy. 4 A. It's my understanding it was. 4 THE WITNESS: I conducted an 5 5 O. And are you aware that the reservoir independent investigation independent from 6 and infusion set were cleared through the 6 what the FDA may or may not have done. 7 7 510(k) process by the FDA? BY MR. MERRELL: 8 8 A. I don't recall which specific process Q. Okay. That's a fair point. You are 9 9 they went through. not actually making an analysis of the safety 10 Q. Does the fact that it was PMA 10 and efficacy of these products; is that 11 approved, the devices were PMA approved or 11 correct? 12 510(k) cleared by the FDA, does that have any 12 MR. HAVERTY: As the FDA 13 impact on your opinions at all? 13 understands that. 14 A. It does not. 14 THE WITNESS: Not with respect 15 Q. Does the FDA's view of the safety and 15 to the manner in which the FDA would 16 effectiveness of these devices and their 16 understand it. 17 labeling, does that have any impact on your 17 BY MR. MERRELL: 18 opinions? 18 Q. Okay. So if you review or analyze 19 A. Specifically, on my opinions, they do 19 safety or efficacy, it's not in the same manner 2.0 not. 20 that the FDA does it; is that correct? 21 21 Q. So you come to your opinions A. I did not do an exhaustive 22 regarding the labeling and instructions for use 22 investigation of what the FDA requirements were 23 and the safety and efficacy of these products 23 or what their processes or what their thought 24 based on your analysis, and the FDA's review is 24 was. 25 not germane to it; is that accurate? 25 I looked at it from a product Page 64 Page 65 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 safety standpoint, a human factors standpoint, Q. Okay. And I think that's helpful --3 3 and came to my opinions based upon my training, which means I probably don't have to cover --4 4 my education and my experience in the standard so you're not -- strike that. 5 5 of care for a product designing introducing a You're not here to provide any 6 product into the market that's going to be used 6 opinions at all about the 523 insulin pump and 7 7 by the typical or average consumer such as the whether or not it had a malfunction or whether 8 8 Brackins. or not it was defective or anything like that; 9 9 MR. HAVERTY: Just note my is that correct? 10 10 objection to the record that the FDA does A. I'm not providing opinions as to 11 11 not make safety and efficacy whether or not the pump malfunctioned or if the 12 determinations as to 510(k) products. 12 pump itself was defective. 13 13 MR. MERRELL: Okay. I'll note O. Okay. And you don't have the 14 your objection, whether or not we agree on 14 qualifications to really address that; is that 15 it, that's fine. 15 correct? 16 16 BY MR. MERRELL: A. I don't know if I do or do not 17 17 Q. And in this case, you haven't done an because I wasn't asked to address it. 18 18 analysis of efficacy regarding the insulin pump O. Okay. And you have not addressed 19 at all; is that correct? 19 that, correct? 20 20 A. Regarding the pump, I don't believe I A. I have not addressed whether the pump 21 21 have any opinions regarding the pump. was defective or not. 22 22 Q. So you don't actually have any Q. And you haven't addressed whether 23 23 opinions at all regarding the insulin pump; is there was actually a malfunction in this case, 24 24 correct? that correct? 25 25 A. The pump itself, I do not. A. With respect to the pump, I have not.

Page 66 Page 67 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 recall. Q. And sitting here today, you don't 3 3 know whether or not the FDA found the O. Okay. Have you relied upon that at 4 particular pump or infusion set or reservoir to 4 all in coming to your opinions in this case? 5 5 be safe and effective? A. I did not. 6 MR. HAVERTY: Objection. 6 Q. And you're not holding yourself out 7 7 THE WITNESS: I do know that the as an FDA expert with respect to matters in 8 8 FDA -- I don't recall the exact letter this case: is that correct? 9 9 that I saw from the FDA regarding the A. Yeah, I'm not holding myself out as a 10 10 system and the problems with it. regulatory expert in this case, I think that's the best way to put it. 11 I do know that Medtronic did 11 12 initiate a recall of the infusion set 12 Q. Okay. I want to turn to another 13 and/or reservoirs I think in late 2017. 13 topic just briefly. I'm going to ask you about but I did not go into investigation of 14 your opinions relating to the temporary blocked 15 what the FDA did or did not do other than 15 vent issue. Do you understand what I mean when 16 that. 16 I refer to it as that? 17 BY MR. MERRELL: 17 A. I believe so. 18 18 Q. Okay. And you haven't -- you haven't Q. Okay. In your report, are you making 19 looked, for example, at any FDA warning letters 19 a statement or are you coming to an opinion 20 or anything like that with respect to your 20 based on your own review and analysis of 21 analysis in this case? 21 whether or not there actually was a temporary 22 A. I do recall one letter from the FDA 22 blocked vent with respect to Mrs. Brackin's 23 regarding the infusion set or reservoir 23 infusion set? 24 and/or -- well, I'll title it as pump system. 24 A. That's my understanding. 25 That's -- offhand, that's the only one that I 25 Q. Okay. So you say it's your Page 68 Page 69 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 understanding. What is the understanding based produced with the pump or from the pump. 3 3 Q. Is it simply that there was a fill on? 4 4 A. My understanding is based upon my the night before that supports your 5 5 conversations with Mr. Haverty and my understanding that there was a temporary 6 6 understanding of the events. blocked vent? 7 7 Q. And have you conducted any actual A. In conjunction with the fact that she 8 8 experimentation or testing on the infusion set was not -- I believe there was no record of 9 her -- Mrs. Brackin, I should say, 9 or the reservoir infusion pump to determine 10 whether there actually was a temporary blocked 10 administering any independent boluses through 11 11 vent? the evening and morning. 12 12 Q. Do you know how much insulin the A. I have not inspected and/or tested 13 13 insulin pump delivered on January 15th, 2016? the specific infusion set and/or pump involved 14 14 A. Offhand, I do not. I think that my in the matter. 15 15 Q. Okay. What is the -- what evidence understanding is that the daily dosing history 16 16 is there specifically you point to for you to showed a total daily dose of 26.825 units 17 17 come to say that it's your understanding there delivered on January 14th and 132.7 units on 18 was a temporary blocked vent? 18 January 15th following the reservoir fill and 19 A. Yeah, it's based upon my -- my 19 infusion set change. 2.0 20 conversations with Mr. Haverty, which are Q. Okay. And the 132.7 units on 21 21 consistent with what I saw based upon the notes January 15th, does that come from the screen on 22 22 that were taken by Mr. Brackin after the the insulin pump, the screen shot? 23 23 incident regarding what was done and recorded A. It came from my understanding from 24 by the pump regarding the fill the night 24 Brackin Exhibit 22.

before, and the other records that were

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Q. And do you recall offhand if that's

Page 70 Page 71 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 his notes or -the subject pump. 3 3 Q. Okay. Do you know if there is a A. I'd have to go back and find the 4 4 temporary blocked vent and an overdelivery of exhibit. 5 5 insulin related to a temporary blocked vent, do Q. Okay. I'll probably try to do the 6 same. I don't have the exhibit numbers 6 you know if the totals of the insulin delivered 7 7 memorized. would appear on that screen for the total 8 8 insulin delivered for the day? MR. HAVERTY: It is the screen 9 9 A. One more time? shot. 10 10 BY MR. MERRELL: Q. Yeah, it probably wasn't worded real 11 11 Q. It is the screen shot. Okay. well. 12 12 Have you looked at the screen If there's a temporary blocked 13 13 shots of the insulin pump? vent that leads to an overdelivery of insulin, 14 14 A. If they were part of the exhibits, I do you know whether or not that information is 15 recorded anyplace on the insulin pump? 15 have. 16 16 Q. Okay. And you testified earlier that A. If there is a temporary block whether 17 you did not review the testimony of Afshin 17 it's recorded on the insulin pump; is that what 18 18 Bazargan; is that correct? you're asking me? 19 19 A. I have not. Q. Yes. 20 Q. So you did not see his testimony that 20 A. I'm not aware of a recording that 21 21 the 132.7 units could only come from there was a temporary vent block on the insulin 22 22 programming basal and/or bolus? pump. 23 23 A. I am not aware if his testimony in Q. Okay. So let's start with this, so 24 Brackin Exhibit No. 22 are photographs of the 24 you're not -- you don't have any evidence or 25 different screens of the -- my understanding 25 you're not aware that there's any sort of Page 72 Page 73 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 2 reporting or recording in the insulin pump in A. I don't recall mentioning that, but 3 3 this case that there was an overdelivery of it is in my report. 4 4 insulin from the temporary blocked vent? Q. Okay. Does that impact your analysis 5 A. It's my understanding the pump does 5 at all in determining whether there was a 6 6 temporary blocked vent? not record that there was a temporary blocked 7 7 vent event. Blocked vent event. A. I don't believe that it does. It's 8 8 just part of my understanding of what was Q. Okay. And is it also your 9 9 understanding that the insulin pump would not occurring. 10 record any amount of delivery of insulin from a 10 Q. Okav. 11 11 temporary blocked vent? A. Or what did occur. 12 A. I did not get into that analysis 12 Q. So the amount of that manual prime of 13 13 during my investigation. 3.1 units, that doesn't impact your opinion 14 Q. So given that you didn't go into that 14 whether or not there was a temporary blocked 15 analysis, you don't have any awareness in this 15 vent in this case? 16 16 case that there's a register or number or A. As to whether it was 3.1 or 3.2 or 17 17 something in the data from the pump recording a 3.0, does not. 18 specific amount of overdelivery of insulin from 18 Q. Okay. And if it was -- the prime was 19 a temporary blocked vent? 19 10, that wouldn't impact your opinion as to 20 20 A. I don't know and I didn't assess the whether or not there was a temporary blocked 21 21 pump to determine how it was recording the vent? 22 amount of insulin delivery associated with a 22 A. At this point, I don't know. 23 23 temporary blocked vent event. Q. So the amount of the manual prime has 24 24 Q. And you mentioned the priming of 3.1 no impact on your analysis of whether or not 25 25 units earlier? there's a temporary blocked vent?

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- A. Yeah, I don't believe I factored in the specific amount of the manual prime in determining my understanding as to whether or not there was a temporary blocked vent at issue or an event that occurred that caused the overdelivery of insulin to Mrs. Brackin on the 14th and 15th of January.
- Q. Did you speak at all with Mr. Brackin in coming to your opinions?
 - A. I did not.

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- Q. Have you spoken to any treating physicians at all in coming to your opinions?
 - A. I have not.
- Q. Have you spoken to any other family members of the Brackins in coming to your opinions in this case?
- A. I did not. I relied upon Mr. Brackin's deposition testimony for the drafting of my report, and I relied upon Luci Brackin's deposition testimony after my report was written.
- Q. Do you agree that Mr. Brackin based on his deposition testimony demonstrated an ability to refill the reservoir consistent with

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WILLIAM J. VIGILANTE, JR. the instructions provided with the getting

starting guide, including placing the reservoir over the vial before moving it?

- A. I do remember seeing the video of the deposition, I believe, and watching him fill the vial and then remove the vial -- the reservoir from the transfer guard with the correct orientation of the insulin pump vial and reservoir with respect to Medtronic's IFU and Getting Started Guide.
- O. Is there any testimony in this case supporting that Mr. Brackin on the evening of January 14, 2016 incorrectly refilled the reservoir with the orientation of the insulin vial on the bottom?
- A. Yeah, I don't recall Mr. Brackin having a specific memory of how he did the actual task on the night of the refill or January 14th.

There's testimony for Mrs. Luci Brackin that the need to have the reservoir over the vial, insulin vial, when removing the reservoir from the transfer guard was not emphasized during the pump training that they

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WILLIAM J. VIGILANTE, JR. all received when Mrs. Brackin began her insulin pump treatment, and I believe that Mr. Brackin had similar testimony.

- O. Okay. But you haven't seen any testimony from any witness that in fact Mr. Brackin had the orientation reversed where the reservoir was on the bottom and the insulin vial was on top?
- A. Yeah, it's my understanding that it was just Mr. Brackin and Pamela Brackin present at the time that the infusion set was changed. And, again, I'm not aware of Mrs. Brackin ever having the opportunity to testify or to provide a statement, and I don't recall anything in Mr. Brackin's testimony regarding his being able to remember what the orientation was at the time or the night prior to the 15th of January.
- Q. Okay. So then you haven't -- there's an absence of evidence as to what the orientation was the evening of January 14th, 2016; is that correct?
- A. There's an absence of witness testimony as to what actually occurred.

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- Q. Okay. There's an absence of witness testimony as to what actually occurred on January 14th, 2016 with regard to the orientation of the reservoir and the insulin vial; is that correct?
 - A. That's my understanding.
- O. And did you review the deposition testimony of Kristin Bettis where she discussed that she would train patients to place the insulin vial on the bottom on a table with the reservoir on top?
- A. I don't believe she testified to that specifically.
- Q. Okay. Do you recall seeing any testimony from Kristin Bettis about utilizing a table when going through the refilling process of the reservoir and with the insulin vial?
- A. My recall is that she would start with the insulin vial on the table, but I do not recall her showing training or demonstrating having either the vial or the reservoir on the table when removing the reservoir from the transfer guard.
 - Q. Okay. Is your understanding that

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there was a temporary blocked vent in this case, is that an assumption you've made?

- A. It's my understanding, so it is an assumption.
- Q. Is it an assumption that you've tested at all?
- A. It's not an opinion, so there was no need for me to test it, it's just my understanding.
- Q. So in your analysis of this case, you started with the assumption that there was in fact a temporary blocked vent on January 14th -- 15th 2016?
 - A. No, I did not.

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Q. Okay. Explain that.

A. It's my -- based upon my review of the documents both in the Brackin incident and the Dennert incident that there was a temporary blocked vent -- potential associated with the infusion set and reservoir due to the design of the vents in the manner in which the units were connected and the reservoir was filled with -with insulin, the hazard associated with that was a laid out fairly clearly in the Medtronic

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documents for the potential of over or underdelivery of insulin, which, of course, can create or contribute to catastrophic injuries to the patient. Those exists whether or not Mr. or Mrs. Brackin were ever provided with the subject pump and infusion -- infusion set.

The second part of my analysis regarding the failure to conduct a proper risk and human factors analysis, again, does not involve whether or not Mr. or Mrs. Brackin were ever given the pump. Those failures preexisted Mrs. Brackin's prescription of the pump. They were actions that Medtronic failed to take that they should have taken much before Mrs. Brackin was ever given the pump or the infusion set or the reservoir to use.

Medtronic's failure to provide adequate warnings and instructions also are independent as -- of what Mr. and Mrs. Brackin may or may not have done. Again, those failures preexisted the prescription of the pump and infusion set to Mr. and Mrs. -- or Mrs. Brackin. So that's -- that's what I meant.

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Q. Okay.

A. What I mean.

Q. So you -- go ahead.

MR. HAVERTY: Just so we're really clear, his opinions go to the issue of whether or not the product was defective in its design. And that's really essentially what he's talking about, so that's why he says this is independent of what -- what actually happened that night.

He's really just here about defective design and inadequate warning with -- in the face of a hazard that could have been foreseeably that's -- so I just want you to understand what the -- the parameters of his opinions are.

BY MR. MERRELL:

O. I think, yeah, I'm understanding. So you -- you -- your analysis in this case of the potential hazard that you just discussed and of the instructions for use in human factors issues surrounding it, you -that's really irrespective of what actually

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occurred in this case in terms of whether there was a temporary blocked vent; is that correct?

A. Whether or not there was a temporary blocked vent that occurred to Mrs. Brackin on the evening of January 14th going into the 15th is not relevant to whether or not Medtronic failed to conduct a proper risk and human factors analysis, whether or not they failed to provide adequate warnings and instructions, and whether or not the product was defective because of their failures.

The only thing that's relevant to with respect to my opinions is the causation, and for that causation opinion, I have to make the assumption based upon my understanding that there was indeed or in fact a blocked vent, temporary blocked vent, a blocked vent event that occurred on January 14th going into the 15th of January.

Q. So the only way you can make the causation opinion you just referenced which is in your report is through an assumption that there actually was a temporary blocked vent, correct?

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- A. Correct. So if there's not a temporary blocked vent, I would not have been able to connect Medtronic's failure to the defect evident product to the actual injury to Mrs. Brackin. So the injury to Mrs. Brackin, my understanding would be there would have to be a temporary blocked vent event to have occurred to link the failures and the defect to the injury.
- Q. Okay. And you haven't evaluated other potential sources or causes of an overdelivery of insulin in this case; is that correct?
 - A. I have not -- well, I take that back. So, again, it was not part of my

analysis to determine whether or not there was a temporary blocked vent event that occurred.

But as I mentioned earlier, based upon my review of the material, I didn't see another potential cause of the overdelivery of insulin, and what I did see was consistent with my understanding and knowledge of these types of events. So I wasn't asked to do the analysis, but in my analysis, I did not find

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WILLIAM J. VIGILANTE, JR. that there was another potential.

- Q. Okay. That's helpful. So it was not part of your analysis to determine whether or not there was a temporary blocked vent that actually occurred here?
- A. It was my understanding it was an assumption I used to link the causation.
- Q. Understood. But it wasn't your analysis to determine whether or not there was a temporary blocked vent that actually occurred?
- A. That's correct, I did not set out or was asked to determine that.
- Q. Okay. Your -- sort of your bucket is really more into evaluating the hazards we discussed and the human factors issues and instructions for use and labeling issues surrounding it?
 - A. And design.
- Q. And with respect to design, though, I think we already covered this, you're not addressing alternative designs or how the -- the product could have been designed differently; is that correct?

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- A. Again, I have an understanding and assumption that there were other types of alternative designs that were available to eliminate the potential for a blocked vent -- or, excuse me, an over/underdelivery of insulin due to a blocked vent. But I did not do the analysis to show that what those alternative designs were or the feasibility --
 - Q. Okay.
 - A. -- of those alternative designs.
- Q. So you haven't done any analysis of potential alternative designs or the feasibility of those alternative designs to address this hazard that you've identified; is that correct?
- A. I was not asked to do that, and I did not do that, but it's my understanding that there were.

BY MR. MERRELL:

Q. Okay. I'm going object as nonresponsive.

And I take it you -- since you didn't really consider or analyze whether there was a temporary blocked vent or analyze

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potential causes for overdelivery of insulin, you didn't consider whether or not Mrs. Brackin changed the temporary basal rate, for example, as an alternative?

- A. I did not specifically investigate that. I did not see any evidence of it in my review of the file material.
- Q. Okay. But you are -- as you're going through this, your analysis per your report, temporary basal rate was not something that was part of your analysis; is that correct?
- A. I did not specifically do an investigation to determine that.
- Q. And you're not here as a design engineer; you would agree with that?
- A. I would be here as a human factors design expert.
- Q. You're not offering an opinion that the design of the P-Cap was inappropriate, are you?

MR. HAVERTY: Objection. THE WITNESS: Yes, I am. Given the risk associated with contaminating the underside of the membrane, it was

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WILLIAM J. VIGILANTE, JR. something that they should have -- Medtronic should have identified during the design and development of the product and then taken steps to eliminate and/or guard against that potential.

It's my understanding that there were feasible alternatives at the time it was designed and first manufactured that eliminated and/or prevented this type of hazard from occurring.

It's my understanding that the standard and the insulin pump industry pre-2000 was -- was called a Luer Lock that did not have vents that did not have the potential to be blocked and lead to a closed -- temporary closed vent or closed blockage -- excuse me, temporary blockage of the vents because there wasn't any vents.

So Medtronic's design to include a waterproof feature of the product, which they never marketed as, introduced a hazard that didn't need to exist, so I would have opinions regarding that topic. Page 87

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WILLIAM J. VIGILANTE, JR. BY MR. MERRELL:

- Q. I just want to follow up on a couple of things. I asked you earlier about Mr. Brackin and his testimony. And you said you actually saw the video; is that correct?
 - A. I believe so, yes.
- Q. And you agree then -- and that video, was that about two years after the incident?
- A. His deposition was March 2018. So we're looking at, I believe, two-plus years if I'm not mistaken.
- Q. Okay. And Mr. Brackin two-plus years after the incident at issue, he hadn't done any infusion set or reservoir refills since then, had he?
- A. I don't recall him being asked that, so I don't know.
- Q. You would agree that there wouldn't really be any reason for him to ever do a reservoir and infusion set change after this date given that his wife passed away; is that correct?
 - A. I don't -- I didn't look into whether or not he had any reason to, and I don't

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WILLIAM J. VIGILANTE, JR. believe that he was asked that in his deposition.

Q. Okay. In any case, two years after the incident occurred, you agree he was still able to demonstrate the proper sequence of refilling reservoir including having the reservoir on top of the insulin vial before moving it?

A. So I think I need to amend my answer. I don't know that I ever saw the video. I think it was just my understanding based upon the transcript that he was able to demonstrate the procedure consistent with the preferred method of Medtronic during his deposition.

Q. Okay. So you haven't actually watched the video of Mr. Brackin's deposition?

A. I don't have it listed in my material available, and I don't have a specific recollection, so at this point I don't know.

Q. Okay. But based on your review of the reading the deposition transcript of Mr. Brackin, you agree two years after the incident he still demonstrated the ability to correctly refill the reservoir including having WILLIAM J. VIGILANTE, JR. the reservoir on top of the insulin vial as the last step before removing it?

- A. Yes, it's my understanding during his deposition that he was -- he was able to demonstrate the preferred method of Medtronic with regard to removal of the reservoir from the transfer guard with the reservoir on top of the insulin vial.
- Q. And there's -- you agree there's no testimony that Mr. Brackin did not have an appropriate understanding of the steps for refilling the reservoir?
- A. I don't recall in his testimony that he was specifically asked that question. Yeah, I don't recall him being specifically asked that question.
- Q. Okay. Maybe I didn't ask the question right. I wasn't really asking specifically about his testimony.

You haven't seen any testimony in this case that would indicate that Mr. Brackin did not have an understanding of the appropriate steps of refilling?

A. I don't know that he was ever asked

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WILLIAM J. VIGILANTE, JR. if he had an understanding of the appropriate steps.

It's my understanding that after they were given the pump and brought it home, he followed the Getting Started Guide for the five or six times he did the insulin pump -- or infusion set change. I don't recall him being asked if during those five or six times he was following the Getting Started Guide, that he understood or appreciated the need and the preference of Medtronic to have the reservoir over the insulin vial when it was removed from the transfer guard or that the insulin vial -- or, excuse me, the reservoir needed to be removed from the transfer guard before the insulin vial. I don't recall him ever being asked those questions.

Q. Okay. Well, my question is a little bit different.

Have you seen any testimony at all to suggest that Mr. Brackin was not following the appropriate steps from the Getting Started Guide?

A. At what point in time?

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- Q. At any time.
- A. Yes.
- Q. Okay. Which testimony is that?
- A. Testimony that he changed the infusion set on the evening before January 15th which led to the closed -- temporary closed vent event, which is consistent with changing or removing the vial -- or, excuse me, the reservoir with the vial above it. So that would be evidence of him not doing it correctly all the time at the very least.
- Q. That's based on your assumption that that actually occurred, correct?
 - A. That's correct.
- Q. Okay.
 - A. Well, it's my assumption that's what the event was.
 - Q. Okay. Is an assumption, is that evidence?

MR. HAVERTY: Objection. You're asking him a legal question.

THE WITNESS: Yeah, I mean, you guys are going to have to figure that out at trial. I have my opinions. I have the

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basis for them. The assumptions I made to do my investigations, if those things change, you know, that's -- that's beyond me at this point.

BY MR. MERRELL:

Q. Well, I'm just trying to understand your answer, because when I asked you if you are familiar with any testimony to support that Mr. Brackin did not have an appropriate understanding of the refilling, you pointed back to the assumption that there actually was a temporary blocked yent in this case, correct?

A. I don't believe that's the exact question you asked me to be fair. But part of my analysis is the assumption that there was a temporary blocked vent that occurred.

It very well may be that there was another liquid that contaminated the top of that reservoir other than the insulin, but the most likely cause is the fact that the evening of January 14th Mr. Brackin removed the reservoir while under the insulin vial consistent with the known use of the product that preceded that evening and preceded

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Mrs. Brackin's being prescribed the pump in the first place.

So this is a known use.

Medtronic was well aware of it, and they should have been aware of it when they designed it back in 1999 and 2000. So the testimony evidence that I would point to is the fact that Mr. Brackin changed the vent -- or changed the -- changed the infusion set the evening before Mrs. Brackin was found unresponsive.

- Q. So the only testimony you're citing as support that Mr. Brackin refilled the reservoir with the reservoir on the bottom and the vial, insulin vial, on top is his testimony that he changed the infusion set on the evening of January 14th, 2016?
 - A. Yes and no.
 - Q. And what is the no?
- A. Well, there's other testimony. So, for example, Mark Curtis in his -- in his deposition back in 2005 testified as to how he determined what was going on. The fact of the matter was that Mr. Curtis did the same thing that I'm concluding that Mr. Brackin did during

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WILLIAM J. VIGILANTE, JR. his investigation as to why this was occurring. He removed the reservoir from the transfer guard with the insulin vial over it, even though, he, as I noted in my report, was well aware of and had been trained and had done it multiple times before that he was supposed to remove the reservoir according to the instructions while above the insulin vial.

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So I think there's other testimony, too, that eventually Medtronic employees became aware of why and how these closed vents -- these blocked vent -- blocked vent events were occurring. So that background information as to Medtronic's knowledge, which is also consistent with the discovery material they provided, it's consistent with the -- the emails from their global help or support center that they were aware of it, consistent with the YouTube videos that I pointed to.

So all of that evidence is consistent -- or it shows that the -- the cause of these closed vent is getting material, a liquid or foreign substance, on top of the reservoir before it's connected to the P-Cap,

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WILLIAM J. VIGILANTE, JR. and that the likely -- most likely cause of that is the end version of the vial in the reservoir while the reservoir is removed. So taking that information and knowledge and applying it to what happened in my understanding of the event that occurred on the 14th and 15th of January, Mr. Brackin's testimony would suggest that that's in fact what occurred more likely than not.

- Q. And Mr. Curtis, who you referenced, he's a former employee of Medtronic; is that correct?
- A. He was an employee of Medtronic's. I don't know that I know his current state, but he was an employee of Medtronic's.
- Q. And Mr. Curtis, he doesn't have any awareness at all -- or what occurred with respect to Mr. Brackin?

MR. HAVERTY: Objection. THE WITNESS: I have no idea. His deposition testimony was 2015. What he learned after his deposition testimony, I'm not -- I'm not privy to.

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WILLIAM J. VIGILANTE, JR. BY MR. MERRELL:

Q. Well, if you don't know whether or not Mr. Curtis was aware at all of what happened on January 14, 2016 with respect to Mr. Brackin specifically, wouldn't you agree you wouldn't be able to cite Mr. Curtis's testimony as to actually what happened that night?

MR. HAVERTY: Objection. He already testified to that.

THE WITNESS: No. that's not correct.

BY MR. MERRELL:

- Q. So even though Mr. Curtis may or may not have any idea what happened with respect to Mr. Brackin refilling on January 14, 2016, you can somehow rely on his testimony as to what actually did occur?
- A. Again, I would use Mr. Curtis's testimony again to build the background and understanding as to why contaminates were getting on top of the -- on top of the reservoir and contaminating the P-Cap when it was connected to it. And that was because the

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reservoir was being removed from the transfer guard with the insulin vial over it. So I would rely upon that part of Mr. Curtis's testimony to determine and conclude of what happened to Mr. Brackin on the evening of the January 14th.

Q. Okay. So because Mr. Curtis demonstrates that it is possible to have liquid on the P-Cap resulting in a temporary blocked vent, you're relying on that to show or demonstrate that in fact it did occur with respect to Mr. Brackin on January 14th when he changed the infusion set?

MR. HAVERTY: Objection. Mischaracterizes his testimony.

THE WITNESS: Yeah, so I believe Mr. Curtis came to the conclusion that this is why the closed vent -- vents were occurring, not that it was impossible, but this is why they were occurring.

And, again, he determined how it occurred based upon his -- his testing once -- once Medtronic had received those two videos from Germany back in 2013. So

Page 98 Page 99 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 BY MR. MERRELL: he concluded what the cause was. The 3 3 cause was the user removing the reservoir Q. Okay. I'm going to object as 4 4 under the insulin vial, removing it from nonresponsive. 5 5 the transfer guard, and then having the You would agree that there's not 6 6 insulin drip or spill or contaminate the been any testimony from a witness in this case 7 7 top of the reservoir and then connecting that there was actually liquid on the reservoir 8 8 the P-Cap to it. P-Cap on the night of January 14, 2016? 9 9 So that's what he concluded was A. Again, it's my understanding that 10 10 Mr. Brackin and Pamela Brackin were the only occurring. Again, his testimony is part 11 of my understanding and background as to 11 two present when the infusion set was changed. 12 12 what was going on, what Medtronic's Mr. Brackin did not testify that he was aware 13 13 understanding of what was going on. And that there was liquid on the reservoir -- or 14 14 then looking at Mr. Brackin on the evening top of the reservoir prior to it being 15 15 of January 14th is consistent of the connected to the P-Cap connector. 16 16 outcome, the closed vent causing the Q. Okay. And you would agree that 17 17 Mr. Brackin, he -- he never testified that overdelivery of insulin, is consistent 18 18 every had at any time refilling the reservoir with what Mr. Curtis found and what 19 19 the insulin vial on the top with the reservoir Medtronic was finding, and what was shown 20 in the YouTube videos that I pointed to, 20 on the bottom; would you agree with that? 21 21 A. I don't recall him ever testifying to what was found in the YouTube videos that 22 22 Medtronic's global support management team that. 23 23 had found back in 2013. So that's how I O. Okay. 24 would use and rely upon Mr. Curtis's 24 A. We've been going about another. 25 25 Q. Yes, sure. testimony. Page 100 Page 101 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 A. Can we take a break? 2 A. Yes. 3 THE VIDEOGRAPHER: We're now Q. Is it still your understanding that 4 these FDA guidances from 2000 and 2016 are not 4 going off the record. The video time is 5 5 actually requirements? 12:13 and this ends DVD number two. 6 6 A. I'm not aware of them being 7 7 (Whereupon, a short recess regulations. 8 8 Q. Okay. So given that they're not was taken.) 9 9 regulations, they're not FDA requirements; is 10 10 that accurate? THE VIDEOGRAPHER: We are now 11 11 MR. HAVERTY: Objection. He back on record. The video time is 12 12:59 and this begins DVD number three. 12 said what he thought they were, they're 13 BY MR. MERRELL: 13 not regulations. 14 Q. Okay. I'm just going to just clean 14 THE WITNESS: Yeah, they're not 15 15 up a few things and backtrack a bit things in regulations. 16 16 my notes. BY MR. MERRELL: 17 17 Q. Do you know whether or not they're We talked a little bit earlier 18 about the 2016 and 2000 FDA guidance on human 18 requirements? 19 factors. That's something that you referenced 19 A. Well, I think that if the FDA had a 20 20 in your report, correct? requirement, it would be a regulation. 21 21 A. I reference the 2000 version in my Q. Okay. So you would think a 22 22 report. requirement from the FDA would have to be in

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O. Okay. You referenced the 2000

on the CD over there?

version and you have, I think, the 2016 version

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A. I believe so.

the form of a regulation; is that accurate?

Q. And these two guidances are not

Page 102 Page 103 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 regulations, correct? case; is that correct? 3 3 A. The 2000 was not part of a FDA A. I know I prepared a report. I don't 4 regulation at the time. 4 know if I prepared a supplemental report or 5 5 Q. Is it part of an FDA regulation now? 6 6 A. I don't know. Q. Okay. 7 7 Q. Do you know if you had all of the A. Oh, yeah, I do recall. I did -- I 8 8 human factors evaluations performed by did produce at least one supplemental report. 9 Medtronic for the P-Cap in your assessment? 9 There may have actually been two. 10 10 A. I'm aware of the usability studies Q. Do you recall with your initial 11 that were testified to by Susan McConnell. 11 report in the Dennert case that you did not 12 12 Q. Anything else? have the deposition of Susan McConnell? 13 A. That's all. 13 A. That was the case. 14 14 Q. So you haven't reviewed anything Q. And in that initial expert report for 15 15 other than those usability studies testified to the Dennert case, did you indicate that there 16 16 by McConnell? had not been any human factors analysis by 17 17 A. I don't believe so. Medtronic? 18 18 Q. Would you agree that if Pamela A. Based upon the testimony that I had 19 Brackin did not have a temporary blocked vent, 19 from Randy Adair and others, did I conclude 20 then your opinions would not be causally 20 that. 21 related to this case? 21 Q. And then after you reviewed the 22 22 McConnell deposition, did you supplement it to A. With respect to causation, that's 23 23 correct that mistake in your original report? correct. 24 Q. You also prepared an expert report 24 A. After I received the McConnell 25 and a supplemental expert report in the Dennert 25 deposition, I updated my report. Page 104 Page 105 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. Other than that one -review the User Guide for the insulin pump? 3 A. I'm sorry, I supplemented my report. A. I'm -- the testimony is they only 4 4 Q. Other than the one issue with respect used the Getting Started Guide, they only used 5 5 to the McConnell deposition, do you stand by it during training, and that was the only thing 6 the opinions and information you put in your 6 they referenced -- that he referenced after --7 7 after training. Dennert reports? 8 8 MR. HAVERTY: Objection. Asked Q. Is there any testimony that the 9 9 and answered. Brackins did not understand the Getting Started 10 10 Guide for the insulin pump? THE WITNESS: I don't remember 11 11 A. I don't think that there was any everything that was in them, but I don't 12 12 testimony that -- from Mr. Brackin that he recall anything specifically offhand I 13 13 didn't understand the information in the don't agree with. 14 BY MR. MERRELL: 14 Getting Started Guide. 15 15 Q. Do you know if you copied any of the Q. Have you ever been involved in a CAPA 16 16 portions of the expert report from Dennert into process? 17 17 the Brackin report? A. I'm sorry, one more time? 18 18 A. I did reuse some of the material. Q. Have you been involved in a CAPA 19 19 Q. Do you know if the Brackins ever process? 20 20 reviewed the IFU for the reservoir or infusion A. I have not. 21 21 set? Q. Have you ever been involved in 22 22 A. It's my understanding Mr. Brackin post-market surveillance program for a medical 23 23 testified that they did not, they only relied device? 24 upon the Getting Started Guide. 24 A. I have not. 25 25 Q. And did they, similarly, did they not Q. Have you reviewed the transcript from

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WILLIAM J. VIGILANTE, JR. the 24-hour helpline call that Mr. Brackin placed to Medtronic at all?

A. I don't believe so.

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- Q. So you're not aware of any of the information that Mr. Brackin may have conveyed to the Medtronic 24-hour helpline in his call?
- A. The only information I would have is what Mr. Brackin testified to regarding him calling Medtronic when he received the -- I think there was a failure -- error message that came up on the pump the day -- either the day of or the day after the event.
 - O. So the only information -- sorry.
- A. I can't -- motor error I think was the message that appeared on the pump screen.
 - O. So the --
- A. He called -- he called Medtronic's helpline to speak -- to speak to -- and spoke with a representative about the motor error message.
- Q. So the only information you have regarding that phone call that Mr. Brackin placed is from his testimony and exhibits from his deposition?

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- A. I believe so.
- Q. Have you been involved at all in any trending analysis of complaints for a medical device manufacturer?
 - A. I have not.
- Q. And have you ever been involved in assessment or analysis of whether or not there was a signal from trend analysis for a medical device?
 - A. For on behalf of a --
 - Q. No.
- A. -- medical device?
 - O. Not limited to that.
 - A. I don't believe so.
- Q. Did you conduct any sort of assessment or analysis in this case of the complaints coming into Medtronic to assess whether there was any sort of signal to Medtronic regarding a temporary blocked vent, for example?
- A. I did look at the testimony and the exhibits and the data that came in. Over the years, Medtronic has tracked this in different ways using different error codes. And based

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upon the error code that were used, they were coming to different figures, if you will. So I believe that at one point they were looking at identifying a handful of potential temporary blocked vent events.

They then -- when they looked -relooked at the error codes, they moved that up -- that estimate up until about 90 events a vear, and then when they moved to the -- I think it's EO or EA30 or 35 code in between 2013 and 2014, after the health care -- Dear Health Care letter. I think they determined that there were on the order of 750 reported events.

So I think that's my understanding of the -- at least the history of the recording and reporting of these types of events.

- Q. Did you try to make any sort of analysis as to the -- the occurrence level, whether it's extremely rare, rare or common in terms of a temporary blocked vent?
- A. I didn't do an in-depth investigation of it. What I did note is in one of the -- one

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of the emails, if I remember correctly, that were discussing at the time the prime fill anomaly, which they were calling it prior to the temporary blocked vent event, they had noted there was something in the order of -- I can't remember the numbers, but they gave the numbers and then they gave what they thought was a number of reported events based upon the old error code. I think that's the only statistic I've seen in my review of all of the discovery documents and deposition testimony I've looked at.

- Q. Do you remember what that statistic was, was it a percentage?
- A. They didn't provide a percentage; they just provided the two numbers. And, of course, if you have the two numbers, you can do the percentage.
- Q. But you haven't taken an analysis of what the percentage was of prime -- prime fill anomaly events or temporary blocked vents that came into Medtronic?
- A. I don't know that I specifically did the calculation, but it was something on the

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WILLIAM J. VIGILANTE, JR. order of less than 1 percent. That's assuming that there were only 90 events reported that year.

But, again, they changed the error classification or the classification of the event, and they went from 90 a year to 750 a year, so that, of course, would change the percentage. But they didn't provide the -- I didn't see any data of them providing the number of infusion or -- or pump patients.

And I don't recall if the number that I did see was pump patients or the number of infusion sets sold in the year. So that would be a different analysis depending upon whether you're looking at patient population or the number of infusion sets sold.

- Q. So I take it sitting here now you don't have a percentage in your mind of what percentage of prime fill anomaly events or complaints that came in compared to the total number of infusion sets?
- A. Yeah, I don't know what the exact number is. I do know that more than one was one too many, but I don't know what the exact

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WILLIAM J. VIGILANTE, JR. number is.

- Q. Is it your view then that one incident of temporary blocked vent or prime fill anomaly should have initiated action by Medtronic?
- A. It's my view that they should have identified this before they put this product on the market. And had they, they wouldn't have had one reported incident, and they wouldn't have had one injury or death because of it.
 - O. Uh-hum.
- A. This was a foreseeable consequence of the design of that vent system on the top of the P-Cap, and it's something through proper human factors and risk analysis that a prudent manufacturer of Medtronic's -- Medtronic's place would have and should have caught --
- Q. And --
 - A. -- and addressed.
 - Q. So you -- your opinion is that somewhere in the 2000 time frame Medtronic should have identified this hazard?
 - A. It should have been identified during development.

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Q. And I take it then you disagree with Mr. Klimowicz that it would have been difficult to identify a temporary blocked vent as a potential hazard?

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- A. I don't know what Mr. Klimowicz testified to regarding that topic. But it's my opinion that through proper risk and -- excuse me, risk and human factors analysis, this would have been identified during development.
- Q. So would you disagree that it would have been difficult to identify temporary blocked vent as a potential hazard during development?
- A. Given the way they designed the product, I would. They didn't have any human factors input into the design until they were looking at the usability, quote/unquote, usability testing of the IFU. At that point you're integrating human factors late into the design process. It should have been up front.

As I note in my report, part of the risk assessment should have included a task analysis. And based upon Randy Adair's knowledge regarding what can happen when the Page 113

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vents were blocked and there was not equalization of the pressure inside the vial and the atmosphere outside, this should have been caught during development had they integrated and conducted proper risk and human factors analysis.

- Q. Would you agree that if the instructions for use in the Medtronic Getting Started Guide are followed, you would not have a temporary blocked vent occurring?
- A. Yeah, I don't know that that's the case. And certainly, it depends upon which tradition of the IFU.

So if you follow the instructions in the 2000 -- the IFU that was provided with the infusion -- the reservoirs in 2013, 2014, in the -- I have to go back and look at the pump manual. But if you follow those two versions of the IFU, your chances of getting insulin squirting onto the reservoir and removing the reservoir from the transfer guard were minimized.

But there was still a risk of getting liquid either on the P-Cap or the top

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WILLIAM J. VIGILANTE, JR. of the reservoir from other sources while doing the infusion set changeover. So it's not just the insulin that could potentially lead to the closed block, it could be any -- any other type of liquid or oil. So it was still possible even if you follow with those IFUs to have the event occur.

Q. And so I just want to narrow this a bit. Would you agree that if you follow the instructions for use specifically in the 523 insulin pump that the Brackins were provided and relied upon, if they follow the instructions for refilling the reservoir, would you agree that you could not have a temporary blocked vent?

MR. HAVERTY: Which instructions?
BY MR. MERRELL:

Q. Oh, I'm sorry, I'll ask it again if it's not clear.

MR. HAVERTY: No, no, because there are several sources for instructions.

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WILLIAM J. VIGILANTE, JR. BY MR. MERRELL:

Q. No, I understand. I thought I was being specific, but I'm going to try it again.

Would you agree that if the Brackins followed the -- well, I'll tell you what, I'll wait until we get to the Getting Started Guide and it may be easier to do it then.

A. Okay.

Q. Is it your opinion that Medtronic failed to follow the FDA guidances from 2000 on human factors with respect to the -- the infusion set?

A. With respect to the design of the infusion set system, I'm not aware of them conducting any human factors testing or evaluation or analysis. It's not until the usability studies, quote/unquote, were conducted on the IFUs after the product was designed and developed did they implement any type of human factors or usability analysis or evaluation.

Q. Do you believe that those usability studies they did on the IFU complied with the

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FDA guidance from 2000 on human factors?

- A. Yes and no.
- Q. And how did they not comply?
- A. Well, they were improperly conducted for what they were supposed to be. So conducting the usability studies in and of themselves is a good thing, but the way in which they were conducted, specifically the user population and the fact that they never evaluated the final IFU to validate it, were improper usability methodologies.

So they -- it was a good thing that they did the testing, but it was a bad thing that they did it improperly.

- Q. And is there anything specifically that you cite to in the 2000 guidance as a source for how they should have conducted the usability studies?
- A. I don't believe I looked or relied upon the 2000 guidelines specifically on how to do the usability studies.

I'm relying upon my education, experience and training. If you're going to do usability studies with a product that's going Page 117

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to be used by a known population, it's appropriate to bring members of that population in to rely upon folks that worked for a company that are aware and -- of -- of the products and had experience with them as opposed to first-time users, that's -- and then try to extrapolate those results to first-time users, it's not proper.

So if they were going to do usability studies, they should have brought people in that were potential patients to determine how they responded to the IFUs. And then finally, if you're going to change the IFU based upon your -- your testing, you need to validate it. There was no a validation. There's not even a mention of what was changed from the last time they ran the, quote/unquote, usability study on the IFU.

And, again, doing the usability study on the IFU is putting the cart after the horse. Human factors analysis should have been done during the design of that system.

The task analysis should have been done before they actually put the parts

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WILLIAM J. VIGILANTE, JR. together. When prototypes were available, they

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should have had users coming in to see how they would interact with them way before the IFU is even developed. So, again, that's another part of the usability studies, quote/unquote, that was improper.

Q. Would you agree that the 2000 FDA guidance does not say anything about having to use first-time users for the usability study?

A. I don't recall whether or not it does. I'd have to read through the entire document.

But proper usability testing methodology includes using people representative of the user population. If you're going to do other forms of human factors evaluation such as hallway testing, then it's appropriate to use a convenient sample such as fellow employees or coworkers. But to do usability testing, it needs to be done within users; otherwise, it's not providing you valid -- valid results for its intended purpose.

Q. Is there a specific reference in your

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references on page 25 of your report that you rely upon regarding that issue?

A. I don't know if there is or there is not. But I can tell you based upon my education, experience and training what the proper way to do a usability study is, and it was not done by Medtronic.

As I mentioned a little bit earlier, using coworkers or a convenient sample is appropriate for early hallway testing. But the purpose of the usability study is to bring actual end users in to see how they use the product, and that's not what Medtronic did.

Q. Is there a specific human factors guidance or literature that you're citing for that point?

A. I don't have a specific example offhand. I'm again relying upon my education, experience and training that includes specific guidances, but I don't -- didn't think it was necessary to cite one in this case.

The whole purpose of usability studies is to bring the user in. If you're not going to bring the user in, you're going to use

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WILLIAM J. VIGILANTE, JR. somebody who's not the user. It's not a

usability study. It's a fairly simple and basic principle. So I apologize, I didn't think to bring in a specific reference to support it.

MR. MERRELL: I'm going to mark as Exhibit 6 the Getting Started Guide that was produced at Brackin's deposition as Brackin-23.

(Whereupon, Exhibit 6 was marked for identification.)

THE WITNESS: So to update my prior response, the 2016 FDA human factors of medical device does note under actual use testing that, quote, in such a test the test participants should be representative of the actual users, the clinical environment should be representative of the actual use environments, and the testing process should affect the participant's interaction with the device as little as

WILLIAM J. VIGILANTE, JR. possible.

So that would be one reference to support my opinions regarding whether or not using coworkers and not the end user population as appropriate.

BY MR. MERRELL:

Q. Okay.

A. So, and then on page 21, when they talk about test participants, under section eight human factors validation testing, it notes, quote, the most important consideration for test participants in human factors validation test something that they represent the population of intended users. So I just wanted to clarify that and append that answer.

And, I'm sorry, what was your next question?

Q. That's okay. Well, I'll follow up on that actually.

There was not a question pending, I was just giving you that.

You cited that the 2016 FDA guidance on human factors with respect to requiring that you use actual -- or the

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WILLIAM J. VIGILANTE, JR. participants be actual users. You do understand that that -- that came out well after the products were developed here?

A. Two things: One, it says that you use people from user population. They don't have to actually be users. So, for example, when you're developing new product, you're not going to have users because the product is not in existence. So you want to bring people in from the user population. Number two, that document is from 2016, but, again, it's just repeating a basic principle of human factors evaluation in usability testing.

I can tell you when I was conducting usability testing for the IBM Corporation on products that was designed for both consumer and commercial purposes, if they were not representative of the user population, it was not a usability test. It would fall under the category of hallway testing, convenient sampling testing. Usability testing infers that you're bringing in people from the user population, representatives from the user population.

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- Q. Okay. In any case, though, the -this citation you make that the usability study
 should be done on -- in user populations, that
 was from the 2016 human factors FDA guidance,
 correct?
- A. The stuff I quoted was from the 2016 guide. As I mentioned, it is consistent with usability and human factors principle going back decades.
- Q. Okay. I'm going to object after guide as nonresponsive.

Okay. I handed you a copy of what marked as Exhibit 6. It's the Getting Started Guide. This is the same Getting Started Guide that was produced at Mr. Brackin's deposition as Brackin-23.

I know you reviewed this and this is a source for your opinions, correct?

A. I had a copy of the Getting Started Guide that the Brackins had and marked up during their training.

I should append that, too. It wasn't just the Brackins who marked it up, it was also the certified trainer, Ms. Bettis.

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- WILLIAM J. VIGILANTE, JR.
- Q. If you look at step eight of the Getting Started Guide, does it instruct the user to flip the vial over so it is now on the bottom?
- A. It states flip file over so it is now on bottom.
- Q. And is it directing the patient to have the insulin vial on the bottom and the reservoir on top?
 - A. That's the intent of it.
- Q. Would you agree with me that if a patient follows the instructions provided here on page 57 through 58 of the Getting Started Guide for the 523 insulin pump, that you would not have a temporary blocked vent?
 - A. No.
 - Q. And why is that?

A. Because the contaminate can be something other than the insulin from the insulin vial that could be on the -- that can get on top of the reservoir. And then when the reservoir is connected to the P-Cap, part of the infusion tubing, you have the same effect.

Q. Would you agree with me that if a

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- Q. Okay. If you turn to page 57.
- A. Sure. Okay.
- Q. Page 57, the title is changing the quick set infusion using a Revel Insulin Pump; do you see that?
 - A. Yes.
- Q. And does this provide the instructions for changing the infusion set as well as refilling the reservoir?
- A. Yes. It starts with rewinding the piston in the pump and then filling the reservoir and connecting the reservoir to the infusion set and then it's going to get to inserting the infusion set into the -- the quick set attached to the body.
- Q. Do you note that at the top of this version, which the Brackins had, it's highlighted at the top, changing the quick set -- infusion set using Revel Insulin Pump?
 - A. Yes.
- Q. Did you see in the deposition of Kristin Bettis that she wanted to emphasize this for the Brackins?
 - A. That's what she testified to.

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WILLIAM J. VIGILANTE, JR. user follows the instructions provided here on page 57 to 58 of the Getting Started Guide for the insulin pump, that they would not have a temporary blocked vent from insulin being on the P-Cap?

- A. I don't know that they can say that either. I'm sorry, that was my answer, I don't know that you can say that either.
- Q. What other source would there be for insulin causing a temporary blocked vent other than -- well, strike that. Let me ask it a different way.

What other possibility would there be from a temporary blocked vent from insulin if the procedure is followed?

A. It could be that you have some insulin that migrates out of the -- out of the reservoir when you are handling it. It could be that you remove the transfer guard from the insulin, or when you put the insulin vial down, some of it gets on your hands and that you then touch the top of the -- of the reservoir.

So I can't say that it eliminates the possibility of insulin

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WILLIAM J. VIGILANTE, JR. contaminating the top of the reservoir. I think that if you follow the instructions, it

think that if you follow the instructions, it minimizes the risk, but it doesn't eliminate it.

- Q. You would agree that if you follow the instructions here in the Getting Started Guide from page 57 to 58, that it would minimize the risk of having a temporary blocked vent?
- A. The risk of insulin causing the temporary blocked vent event would be minimized if you follow the instructions at the time that you were doing it.
- Q. Are you aware of any incidents of a temporary blocked vent where a user followed the instructions provided by Medtronic in the Getting Started Guide?
- A. Yeah, I don't know that that data is captured, so offhand, I don't know. And what I mean is not captured by Medtronic.
- Q. With respect to the Getting Started Guide specifically, what are your criticisms with respect to the instructions provided on the refilling process?

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A. Well, there's two. One is that it's kind of a broader issue that's related to the Getting Started Guide as well as the IFUs and the pump manual. Your -- Medtronic is relying upon warnings and instructions to mitigate a hazard that should have been fixed in the design of the product. So what happens is, is although a user such as Mr. Brackin, who follows the guide for the first five or six times, goes to training with the certified trainer and is told and learns to do the task correctly, it doesn't guarantee that at some point in the future they may have lapsed or slipped and do it with a vial below the insulin -- or the reservoir below the insulin vial.

So, for example, Mr. Curtis again testified that he was trained, aware and experienced in doing this process, but yet in his own testing to try to figure out what was causing the prime fill anomaly, as it was known at the time, did exactly that. He had a slip. He put -- he removed the reservoir from the transfer guard below -- from below the insulin

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vial. In fact, he testified that because he was using the green solution, that when he saw the -- the green drops on the top of the reservoir, he couldn't at first understand how it got there. He had to stop and think about what he did to cause it to get there, and then he realized that even though he had known how do it appropriately or the way Medtronic intended or -- or -- or preferred it to be done, that he did it the opposite way.

So that's the number one criticisms, is that you're relying upon something that is imperfect, and it's not as reliable as eliminating it through design to address a problem that could have been and should have been addressed through design.

The second part that I have more specifically with the Getting Started Guide is that step number eight is not -- there's nothing to emphasize it. So Mr. Brackin and his daughter testified that when they went through training, the fact that the reservoir needed to be on the -- above the insulin vial when removed was not emphasized. There's

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WILLIAM J. VIGILANTE, JR. nothing in the Getting Started Guide that emphasizes the need to do that. There's no warning at that point in the task to alert the user of the need to do it and the consequences of failing to do it and so forth. So they're -- they're kind of the specific criticisms I have of the Getting Started Guide.

Q. Okay. So one is essentially they should have designed around it?

A. Absolutely, that's the -- that's the very first problem with -- with relying upon whether it's the Getting Started Guide or the User Guide or the IFUs. You can tell somebody to do it and people are training these things out every two or three days for years, and it takes just one slip, one intention, one hurrying, one distraction, one fatigue, and they don't invert the unit when they remove the insulin -- or the reservoir from the transfer guard, and then they're at risk for a catastrophic injury.

You cannot leave the potential for catastrophic injury at that type of -- at that type of risk. You cannot expect or rely

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WILLIAM J. VIGILANTE, JR. upon the user to be a hundred percent perfect a hundred percent of the time. It's impossible for a user to be a hundred percent perfect a hundred percent of the time. So you would never want to rely on an instruction or a warning when you're going to address a risk particularly with catastrophic consequences when there was a design solution.

- Q. And as I understand it, you're not providing opinions or analysis as to what the solution should be or alternative design; is that correct?
- A. I do have opinions on that. Number one, they -- they put in the market, they -- Medtronic introduced this P-Cap so that they can market it as being waterproof. They introduced it into the market, and introducing it into the market introduced this hazard that didn't exist before.

And then they never market it as waterproof, so the very reason that they put it out they never actually market it for that reason. It was improper just to introduce a product with a risk -- a risk such --

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catastrophic risk with no utility. So from a risk benefit utility ratio, you got a tremendous risk with no benefit. That's absolutely improper. So that's number one.

Number two is it's my understanding that there were different membranes that could be used. In fact, Medtronic had come up with them, but were delayed in putting them into the -- into the market in 2015, 2016, 2017. Again, they shouldn't have waited 14, 15, 16 years after this product is introduced to getting around to changing the membrane.

So they should have looked -- if they were intending on keeping this product in the market, they should have addressed and looked at the membrane back in 1999/2000. So that's my opinions on that topic.

- Q. And you agree, though, the opinions on the membrane or material, that's not in your expert report?
 - A. It is not.
- Q. And opinions on alternative design, that's not in your expert report, correct?

A. I do mention the Luer Lock that did not have the hazard in my report. I do note that they never considered alternative

materials -- Q. Okay.

A. -- and alternative designs in my report.

I do note that warnings are means of delegating responsibility for product safety to the users in situations where hazards cannot be designed on or so regarded. And I think that's the only areas I address it -- oh, I do address it one more time at the top of section E4 and -- or I note that Medtronic -- if Medtronic choose not to design up a hazard, it should have at least provided adequate instructions and warnings with the infusion set and reservoir.

- Q. But you don't state in your report specific opinion that a specific design should have been implemented?
- A. I don't provide a specific design other than mentioning the Luer Lock did not have that hazard.

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- Q. Okay. You mentioned that, but you don't -- you don't provide an opinion that they should done a specific design as an alternative?
- A. Oh, no, I don't. I opined that they should have done the proper risk and human factors analysis and identify the risk and then addressed it appropriately.
- Q. How should the Getting Started Guide have emphasized the -- the inversion of the insulin vial and the reservoir?
- A. I noted in my report with the use of arrows to emphasize the flip. This is also consistent with Medtronic's management team's assessment regarding their IFUs that were used back in the 2013 time frame.

So on page 22 of my report, I provide those examples. In conjunction with the additional pictograph and arrows, I note that a warning should have been provided consistent with the ANSI C535.6 standard to draw attention to the hazard and how to avoid it and the consequences of not avoiding it.

Q. And what would the warning have said?

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- A. It's noted on page 23 of my report. I'm happy to read it.
 - Q. Sure.
- A. It would start with a signal ward of warning with a signal ward header. It would state something on the order of ensure reservoir top and tubing connector were clean and dry. Liquid can block the vents on a tubing connector causing under or overinsulinization delivery, under or overdelivery of insulinization can result in severe injury or death. If the connector gets wet, throw infusion set and reservoir away and use new ones.

I also note -- so pages 22 and 23 of my report provide the alternatives.

- Q. Do you know whether or not there are any other components of the Getting Started Guide and instructions provided that similarly if not followed could have a potential risk of overdelivery of insulin?
- A. I imagine that there are other parts if not -- if the pump is not used correctly that can result in over or under -- over or

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WILLIAM J. VIGILANTE, JR. underdelivery of insulin.

Q. Do you think that in every instance in the Getting Started Guide if there's a potential -- if the instruction is not followed there's a potential for over or underdelivery of insulin, that it should be noted with a warning?

A. Any hazard associated with the use or foreseeable misuse of the product should be noted with a warning if it's not addressed through a design and/or guarding in the manual.

Q. So, hypothetically, if there were 50 instructions in the Getting Started Guide which if not followed could lead to an overdelivery or underdelivery of insulin, should it have a warning that states that?

A. I'd have to look at the specific instances. But generally, the user has a right to know that if a specific step, if not done in the manner which was prescribed in the User Guide, can result in significant injury or death, they have a right to know when you do that through a warning.

Warnings are designed and

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formatted to draw attention, or capture attention, communicate the fact that there is safety information, that there's a safety issue associated with that particular step or task as laid out in the User Guide or Getting Started Guide.

- Q. And I take it you haven't done an analysis as to whether or not a warning for overdelivery or underdelivery of insulin should be included for any other component of the Getting Started Guide?
- A. Yeah, I did not do an assessment of the entire Getting Started Guide to determine what risks or hazards were with different aspects of the -- of the system and/or use of the system.
- Q. One of the parts of your task analysis relates to the dominant hand in evaluating the appropriate instructions for use; is that correct?
 - A. It does. I'm sorry, go ahead.
- Q. How would you -- should the User Guide have differing instructions depending if someone is left or right-handed?

Page 138 Page 139 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 A. I don't believe so. Q. Would you agree that for any product 3 Q. With respect to the 2014 reservoir 3 that's developed that there can be 4 4 guide, you have your opinions on page 14 unanticipated risks and hazards that are 5 through 15; do you see that? 5 discovered following the marketing of the 6 A. Yes. product? 7 7 Q. And are those criticisms entirely A. Sure. 8 8 based on human factors principles of which hand Q. And would you agree that a risk 9 to place the reservoir in? 9 analysis of any product is not going to be able A. In part. 10 10 to identify every possible risk or hazard of a 11 Q. And what else is it based upon? 11 product? 12 12 A. Well, it's noted above that, starting A. Sure. 13 on page 12 and going from page 12 going into 13 Q. Have you ever had any of your 14 opinions excluded in court before? 14 15 15 Q. Do you believe there should have been A. Sure. 16 any additional warnings on the 2014 reservoir 16 Q. How many times do you think? 17 IFU? 17 A. I'm aware of three times I was not 18 18 allowed to provide testimony at trial. A. Again, they needed -- Medtronic 19 19 needed to highlight the inversion or the Q. And have there been times when your 20 flipping on the IFUs, and they needed to put a 20 testimony has been not excluded, but has been 21 warning at the point where you're going to 21 limited by a judge? 22 attach the P-Cap to the top of the reservoir. 22 A. Sure. 23 23 Q. And the infusion set IFU post-2014, Q. About how many times do you think 24 did that need to have a warning as well? 24 that's happened? 25 25 A. I'm aware of two occasions. A. Same. Page 140 Page 141 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 2 Q. Have you ever rendered an opinion in you know, cases tend to back up, so I might 3 3 a case that the instructions and warnings have a -- you know, write a report in 2016 and 4 4 provided were adequate? then be deposed in 2018 and go to trial or be A. Yes. 5 deposed in 2017 and go to trial in 2018, so I 6 6 may be working on a case on different parts Q. How many times have you done that? 7 7 A. I don't know. over a span of three or four or five years. So 8 8 Q. Over -- since working with Forensic it's probably higher than that. Consulting -- strike that. 9 9 Q. Okay. So the number of cases is 10 Since 2015, with your own 10 probably higher than 30? 11 company, have you issued any opinions that 11 A. That I work on in a year, yes. 12 warnings or instructions for use were adequate? 12 Q. Did you look at the checklist at all 13 13 A. I believe so. that Ms. Bettis covered with the Brackins as 14 Q. How many times have you done that? 14 part of her training? 15 15 A. I don't know. A. You're going to have to show it to me 16 16 Q. How many cases do you think you've and --17 taken since you started your company in 2015? 17 MR. MERRELL: I will. That's 18 A. I don't have a number. 18 fine. 19 Q. Do you have an estimate about how 19 I'm going to mark as Exhibit 7 20 20 many cases you work on as an expert a year? the Pre-Pump Training Checklist and I'll 21 mark as Exhibit 8 the Pump Start Training 21 A. I'd say 30 maybe. 22 Q. In the past year, have you issued any 22 Checklist. 23 23 opinions that the warnings are --24 A. It's probably -- yeah, I'm sorry, 24 (Whereupon, Exhibit 7 and 25 25 it's probably higher than that because I get --Exhibit 8 were marked for

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Page 142	Page 143
¹ WILLIAM J. VIGILANTE, JR.	¹ WILLIAM J. VIGILANTE, JR.
² identification.)	² Let's fix this.
3	Oh, I see now, I gave you two of
4 BY MR. MERRELL:	4 those.
5 Q. I'll hand this to you, and I have a	5 A. Sorry.
6 copy for you.	6 Q. So Exhibit 7 is the pre-pump and
7 MR. HAVERTY: Okay.	7 Exhibit 8, which I gave you previously, is the
8 BY MR. MERRELL:	8 Pump Training Checklist.
9 Q. And looking at Exhibit 7 and 8, have	9 A. So looking at Exhibit 7, I don't
you reviewed these documents before?	recall if I've seen it before.
you reviewed these documents before:	
71. Officiald, I don't know. Thi sorry, I	Q. And what about Exhibit 8, the 1 timp
answered only to 140. 7. I haven't looked at	Training Checkinst, have you seen this one
140. 0.	before:
Q. On, that's line. Okay. 50 we h	74. I don't recan it I ve seen this one
just clarify for the record.	before cities.
A. So these two	Q. Okay. If you look at Exhibit 6, the
Q. Offiland, you don't know if you	Tump Training Checknist, is one of the items
reviewed Exhibit 7, which is the Pre-Pump	that's enecked there, the second from last, the
19 Training Checklist?	infusion set patient demonstrated the ability
A. Did you give me two copies of it?	to fill reservoir and change infusion set with
Q. They look very, very similar.	minimal assistance?
Hopefully, I marked them differently.	A. Are you asking me if that's checked?
A. One is marked, one is not.	Q. Yeah, if that's what it says and if
Did you give me two pre-pumps?	it's checked?
Q. Maybe. I did. All right. Sorry.	A. Yes, that's what it's checked. I
Page 144	Page 145
1 WILLIAM I VIGILANTE IR	1 WILLIAM J. VIGILANTE, JR.
WILLIAM 3. VIGILAMIL, 3K.	WILLIAM J. VIOILAMIL, JK.
didn't follow to make sure that's exactly what	² Q. Yeah, sure.
didn't follow to make sure that's exactly what it says, but something of that nature.	² Q. Yeah, sure.
didn't follow to make sure that's exactly what it says, but something of that nature. Q. Okay. And this is dated, if you look	Q. Yeah, sure. A. Because I've been sitting about an hour.
didn't follow to make sure that's exactly what it says, but something of that nature. Q. Okay. And this is dated, if you look on the second page, it's dated August 27, 2013?	Q. Yeah, sure. A. Because I've been sitting about an hour. THE VIDEOGRAPHER: We are now
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didn't follow to make sure that's exactly what it says, but something of that nature. Q. Okay. And this is dated, if you look on the second page, it's dated August 27, 2013? A. Yes. Q. And on that day, did Ms. Bettis, did she spend about three hours with the Brackins	Q. Yeah, sure. A. Because I've been sitting about an hour. THE VIDEOGRAPHER: We are now going off record. This ends DVD number three. The video time is 1:57.
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Page 146 Page 147 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 good company? connection to the reservoir and so forth. 3 3 MR. HAVERTY: Objection. Q. Do you have any other specific 4 THE WITNESS: I don't have an 4 criticisms of any Medtronic employees? 5 5 opinion on them. Obviously, I'm not aware A. Not offhand. 6 of -- maybe it's not obvious. But I am 6 Q. Let me ask you a couple more 7 7 not aware of all the different products questions about your CV. The front of your CV, 8 8 they sell. you have a title page called human factors and 9 BY MR. MERRELL: 9 ergonomics experience; do you see that? 10 10 Q. Okay. A. Yes. 11 A. Or different industries they're in. 11 Q. What is the purpose of this 12 I'm aware of this particular product in this 12 particular page of the CV? 13 particular system. 13 A. I put it together back in 2003 when I 14 Q. Do you have any criticisms of any 14 joined Robson Forensic or a -- a version of it 15 specific action that a Medtronic employee took 15 back then just to kind give an overview of the 16 in this case? 16 different areas in which I apply my expertise 17 17 A. Well, for example, Randy Adair, when in human factors and ergonomics. And then 18 he was designing the P-Cap, and I do note in my 18 some --19 report that he failed to conduct any type of 19 Q. I'm sorry, go ahead. 20 risk or hazard analysis with the design, and 20 A. Well, I'm sorry. Some of it is also 21 that's improper. He was the guy responsible 21 a summary of some of my experience in different for designing that thing, but yet he designed 22 22 areas of the human factors and ergonomics as 23 it in a vacuum with absolutely no consideration 23 24 for how it would be used and the environments 24 Q. And one of the areas you have listed 25 in which it would be used with respect to its 25 here is warnings; do you see that? Page 148 Page 149 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 2 Q. What about --3 3 A. Public setting. Q. And you have another bullet for 4 4 vision and driving? Q. You also list workplace safety as a 5 5 A. Yes. bullet here? 6 6 Q. Another bullet for motorcycle? A. Yes. 7 7 A. Yes. Q. And you list recreational and 8 sporting activities as a bullet? Q. Do you have particular expertise with 9 9 respect to motorcycle human factors issues? A. Yes. 10 10 A. Yes, I have investigated human Q. You list lighting as a bullet? 11 11 factors associated with the performance of 12 12 motorcycle riders. Q. And do you have accessibility on here 13 13 Q. And do you have significant as a bullet? 14 experience with respect to human factors and 14 A. Yes. 15 15 ergonomics issues related to vision and Q. And then, aging, is that another area 16 16 driving? where you list here in a bullet? 17 17 A. Yes. A. Yes. 18 O. What about slip, trips and falls, is 18 Q. And then you list medication labeling 19 that an area you have significant human factors 19 as a bullet, too; is that correct? 20 2.0 experience in? A. Yes. 21 21 A. Yes, it was going back to Q. And then you have product design and 22 undergraduate and graduate school studying 22 development as a bullet? 23 23 human gait and pedestrian safety whether it be A. Yes. 24 24 in a work space, work setting, or residential Q. And you have user center design as a 25 25 or retail. bullet; is that correct?

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A. Yes.

- Q. Do you agree with me that on this page of your human factors and ergonomics experience you don't specific list medical devices?
- A. I don't specifically use that phrase "medical devices".
- Q. With respect to the medication labeling bullet, what -- what experience specifically are you calling out here?
- A. So from, I guess, like the mid-90s until 2004/2005 time frame, I was involved in research -- researching factors that affect the adequacy of medication labeling for both prescription -- excuse me, nonprescription labeling and prescription medication advertising. So that would be what I'm referring to --
 - Q. Okay.
 - A. -- with that statement.
- Q. So the reference here, the bullet for medication labeling, this is in the 2004 and 2005 time frame -- I apologize, I was misreading that. I'll rephrase it.

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The medication labeling bullet you have here is from the mid-1990s to the 2004 and 2005 time frame?

- A. That's when I was doing approximately -- I guess it's probably more closer to '95 to about 2004/2005. I was active in research related to medication -- over-the-counter medication labeling and prescription medication advertising.
- Q. And what were the -- were there specific aspects of the labeling that you worked on?
- A. Yes. So back in the mid to late '90s under grants from the Drug Information Association and in cooperation with the FDA, our lab, generally and myself specifically conducted a number of research studies the factors that affect the adequacy of over -- over-the-counter medication labeling for both adults and older adults. Older adults were specific population of interest. We looked at things as to how to present information on the labels, how to order the information, the effect of font size, information gathering,

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So both, again, myself
specifically and the lab generally conducted
another series of projects looking at how to
present both benefit and risk information and
prescription medication advertisements. Again,
our research was fed back into the FDA to help
them update and improve the regulations to
ensure that consumers were getting a fair
balance between the risks associated with a
particular medication to the benefits that the
medication offered.

- Q. Did you do any work in terms of the language of warnings with respect to the medication guide -- or the medication labeling?
- A. I don't remember doing anything specifically with specific language in that time frame.
- Q. Did you ever write the labeling or warnings for a medication?
- A. I did create different medication labels for multiple different studies that were conducted. Is that what you're asking me, or are you asking me --
 - Q. Describe that for me. The medication

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effect of light spacing, and other formatting features.

The work that was done and published was used by the FDA when they promulgated their over-the-counter medication labeling regulations in 1999. So a lot of that regulation -- of lot of those regulations were a direct result of the findings from both my research specifically and our lab's research more generally.

Once that project was done or those -- those series of projects were done, I personally went back to my contacts at the FDA to inquire as to what other areas they foresaw the need for human factors-type research.

And -- and the big area that they identified was the advertising of prescription medications, which shortly before the late 1990s the government changed their laws allowing pharmaceutical -- pharmaceutical companies more -- giving them more ability to advertise directly to consumers whether it be television, magazines, newspapers or on the World Wide Web.

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WILLIAM J. VIGILANTE, JR. label for the studies, was it for the study or

for the actual final labeling of the drug?

A. Well, no. So during the studies, some of the usability studies using actual representatives from the user population, we mocked up containers of over-the-counter medications and mocked up the labels for those containers and then used those labels and containers in the actual studies.

The work that we were doing was not specific for a single drug or a single manufacturer, it was for the regulations. So when you go into the over-the-counter medication labeling regulations and they state, there's a minimum font size, a certain type of formatting, the need for bordering and categorization of the information, the need for ordering the information in a certain order on the label, those requirements are based upon the research findings in part from my work and the work done as others in our lab. So it wasn't for a specific manufacturer or specific drug, it was for regulations in general.

Q. Were these medication labels that

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you -- that you mocked up, were these for an actual drug or was it a placebo? I'm just trying to understand.

A. Yeah, we used -- we didn't take, like, for example, in my doctoral thesis or doctoral dissertation, when I was dealing with prescription medication advertisements, I used actual drugs and the information from those drugs and manipulated how it was presented. For the over-the-counter stuff, I think we used the labeling information; so, for example, the ingredients, the directions for use, the warnings and side effects from an existing medication or medications, but changed the name of them so we wouldn't put out a brand name like Tylenol.

You know, we would create a fictitious name, but use the information from, you know, an existing medication or label to create our labels.

Q. Let's take a look at back to your CV. The workshops and continuing education.

A. Okay.

Q. Do any of the workshops and

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continuing education you list here relate to medical devices?

- A. They do.
- Q. Which ones?
- A. So, for example, risk assessment in human reliability, some practical tools for improving safety and human factors approach to accident analysis and prevention, there were workshops that covered basic -- or different human factors and risk assessment principles and how to apply them to different -- different systems.
- Q. Were medical devices specifically addressed at that workshop?
- A. I don't recall them specifically addressing medical devices during the workshops.
- Q. Can you recall medical devices being addressed at any of the workshops that are listed here?
- A. I don't think the other workshops would be relevant to design medical devices.
- Q. Taking a look at your certifications, you have an IPAF operator training

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certification?

A. Yes.

Q. What is that?

A. That's the International Powered Access Federation. So it's training for crane operation -- or, sorry, lift operation.

Q. Then you have the Raymond Safety on the Move forklift certification?

A. Yes.

O. What is that?

A. Again, it's certification for forklift operation.

Q. Then you have a fire con safety emergency response training as well?

A. Yes.

Q. And what is that?

A. That was safety training for confined space entry.

Q. And then you have Motorcycle Safety Foundation, a basic rider course and off-highway motorcycle course?

A. Yes.

Q. What is that exactly?

A. There are two different courses that

Page 158 Page 159 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 are offered by the Motorcycle Safety A. I don't do a whole lot of firearm 3 3 Foundation. One was for basic rider courses, safety. I've done some over the years. It's 4 4 essentially for street riding. The other one certainly an area that I would be happy to do 5 5 was for off-road motorcycle riding. So there's work in. 6 6 safety courses for those two different Q. Are any of your certifications 7 7 related to medical devices? activities. 8 8 Q. Do you ride motorcycles? A. Not that I'm aware of. 9 9 O. And then you have professional A. I do. 10 10 memberships and affiliations. You're a member Q. That's the most important question of 11 11 of the American Society of Safety Engineers? the deposition. 12 12 Did you take these courses A. Yes. 13 13 O. You're a member of the Human Factors primarily for your own interest or is it also 14 14 part of your professional experience? and Ergonomics Society? 15 15 A. Both. A. Yes. That needs to be updated. 16 16 Q. And you have a bullet here for Q. How so? 17 National Rifle Association instructor 17 A. I'm the current program chair for the 18 18 certification for certified rifle? product technical group. 19 19 Q. You're also a member of the A. Yes. 20 Q. And there's also a certified pistol 20 Illuminating Engineering Society? 21 21 A. Yes. personal protection at home and personal 22 22 protection outside the home? O. What is that? 23 23 A. Yes. A. It's the Illuminating Engineering 24 Q. Does that also relate to your 24 Society of North America. So it's 25 professional work? 25 professionals that are involved in the field of Page 160 Page 161 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 lighting, artificial lighting, so whether it be A. There were no specific medical 3 3 workspace, workstation lighting, roadway devices. I can't say that they don't relate to 4 4 lighting, et cetera. them because there's some -- some technical 5 5 Q. Okay. And then you have a number of reports on, for example, the comparison of 6 publications and presentations here that are 6 usability testing methodologies, which would be 7 7 listed on your CV? applicable to the design of medical devices, 8 8 A. Yes. but it wasn't specific to medical devices. 9 9 Q. Do any of these publications or Q. Okay. And then you have a list of 10 10 published patents as well? presentations deal specifically with medical 11 11 devices? A. Yes. 12 12 A. I don't think that any of them deal Q. And none of the patents are for a 13 specifically with medical devices. Some of 13 medical device or components of a medical 14 them deal with over-the-counter medication 14 device? 15 15 labeling, some of them deal with prescription A. I'll agree with the first one. The 16 16 medication labeling. second one, I can't say that it's not because 17 17 there are medical devices that use wireless Q. Okay. And then you have a section 18 18 called technical reports? technology, so I can't say that not. 19 19 Q. So you agree there's not a patent for A. Yes. 20 20 Q. Are these primarily technical reports a medical device? 21 21 from your work at IBM? A. None of them include a patent for a 22 22 A. They're exclusively technical reports specific medical device.

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from my work at IBM.

report relate to medical devices?

Q. And I take it none of these technical

Q. And you don't know whether or not one

might be a component in a medical device?

A. I don't know if one might be related

Page 162 Page 163 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 or relevant to a medical device. Weaver was adequately informed or warned 3 3 regarding the Medtronic insulin pump reservoir Q. You said you read the deposition of 4 Rita Weaver? 4 or infusion set? 5 5 A. Yes. A. I do not address that in my report. 6 Q. Was there anything specific in that 6 Q. And you don't address in your report 7 7 deposition that's germane to your warnings or any of the information that Ms. Weaver may have 8 8 labeling opinions? provided to the Brackins with respect to 9 9 A. I'm not recall anything specific warnings and instructions for the insulin pump 10 10 offhand, and I don't think I specifically infusion set or reservoir? 11 reference her in my report. 11 A. I don't recall her providing the 12 O. Did you assess at all in your report 12 Brackins with any instruction or warning 13 the warnings or information provided to 13 related to this issue or the issue that I'm 14 Ms. Weaver? 14 addressing in my report. 15 A. One more time. 15 Q. By that, you mean a temporary blocked 16 Q. Did you assess at all in your report 16 17 the warnings or information provided by 17 A. Yes, or the necessity of ensuring the 18 18 Medtronic to Ms. Weaver? reservoir was on top of the insulin vial when 19 A. I don't think I looked at any 19 removing it. 20 instructions or manuals that were provided to 20 Q. You have a reference in the available 21 Ms. Weaver that was not provided to the 21 materials the Urgent Medical Device Safety 22 Brackins or related to the pump, the infusion 22 Notification from June 7, 2013. 23 set or the reservoir. 23 A. You said available material? 24 Q. And you haven't provided any opinions 24 O. Yes. 25 in your report as to whether or not Rita Goidel 25 A. All right. One more time, Urgent Page 164 Page 165 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 to be informed about. So that would have been Medical Device Safety Notification? 3 3 Q. Yes, it's referenced in the available how I used that document. 4 4 materials. Q. And you haven't done an assessment of 5 Medtronic's CAPA investigation and response to 5 A. Yes. 6 6 the temporary blocked vent issue they Q. Is that something you reviewed? 7 7 discovered in 2012 to provide opinions in your A. Yes. 8 8 Q. Did you make any analysis or report? 9 9 assessment of the adequacy of that A. I don't have opinions in my report of 10 10 Medtronic's CAPA response. notification? 11 11 A. I did not. I'm not aware of the Q. And you're not providing any opinions 12 12 about whether or not Medtronic complied with Brackins receiving the dear patient letter. 13 13 any specific FDA regulations with respect to O. If they didn't receive it, would it 14 not be relevant to your analysis? 14 the labeling or design of the insulin pump, 15 15 A. Yes and no. reservoir or infusion set? 16 16 Q. But in any case, you didn't assess it A. Yeah, I wasn't asked to or planning 17 17 for adequacy in your report? to provide any opinions regarding Medtronic's 18 18 A. I didn't assess the dear patient compliance to FDA regulations. 19 letter for adequacy as the notification of the 19 Q. As I understand it, your focus has 20 2.0 been primarily on the industry standards that problem or issue to patients. 21 21 What I would have used it was -are not FDA related in terms of your analysis 22 22 what I would have used it for was again the of human factors issues? 23 23 background information of Medtronic's A. I would state that they're not FDA 24 24 specific with regard to the issues I was recognition of the issue and what was required 25 25 to emphasize to the user and what they needed addressing. I think that's the appropriate way

Page 166 Page 167 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 to state it. BY MR. MERRELL: 3 3 Q. Okay. And if you look at number Q. Are any of the guidances that you're relying upon, other than the 2000 and 2016 4 4 four, that's the FDA 2000 guidance, and that 5 5 human factors FDA guidances, are any of them does deal specifically with medical devices, 6 specifically related to medical devices? 6 correct? 7 7 A. Are you asking me if the specific A. That is a document titled guidance 8 8 references I cited in the report; is that what for industry and FDA reviewers on medical 9 9 you're referring to? device use. 10 10 Q. Let's do it a different way. Let's Q. And then you have, for example, a 11 look at the references that are on page 25 of 11 reference to number seven, Wagner 1992, risk 12 your report. 12 taking and accident causation? 13 A. Sure, give me one second. 13 A. Yes. 14 14 Okav. O. Outside of the reference number four, 15 Q. In coming to your opinion, are these 15 do any of the other ten references here deal 16 the primary references you're utilizing in 16 specifically with medical devices? 17 17 assessing whether or not Medtronic complied A. No, they're not limited -- or they're 18 with human factors, principles and industry 18 not limited specifically to medical devices. 19 standards? 19 They are references related to the design and 20 MR. HAVERTY: Objection. Asked 20 development of any and all products and systems 21 21 that are used by people. 22 THE WITNESS: There are specific 22 So the warnings, references on 23 references that I'm using to support my 23 how to design and development warnings, it's 24 opinions. 24 for the design and development of product 25 25 warnings not specific or limited to a specific Page 169 Page 168 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 subset of products. The human factors and A. I did not. 3 3 safety guidelines are for product and Q. Did you look to see if there are any 4 4 development for all products and systems not ANSI guidances with respect to medical devices 5 5 limited to a specific subset or subtype of specifically? 6 6 product or system. A. I'm not aware of any that were 7 7 Q. So references one through three and specific or relevant to what I was doing. 8 8 then four through 11 which you rely upon, those Q. Okay. And did you look at any 9 9 are assessing or addressing human factors specific industry standards, ISO standards or 10 design principles generally for all types of 10 any kind of standard that were specific for 11 11 products? risk assessment of a medical device in coming 12 12 to your opinions? A. Yes, I think it's one to three and 13 13 then five through 11. A. I'm not familiar with an ISO standard 14 14 specific for risk assessment of medical O. Okav. 15 15 A. Because the four was the FDA that was products. I am familiar with ISO standards for 16 16 specifically -risk assessment in general, but not for medical 17 17 Q. Oh, sorry, I didn't mean to say four. products. 18 18 So numbers one through three and then five O. You haven't listed any ISO standards 19 through 11 deal with human factors principles 19 on risk assessment, though? 2.0 20 for all products generally? A. I do not. 21 21 A. Products and systems, yes. Q. Are there any that you rely upon in 22 22 Q. Did you look for any other potential coming to your opinions here? 23 23

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human factors guidances or industry standards

that are specific to medical devices other than

this number four and the 2016 guidance?

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A. Well, yes and no. Again, as part of

my general education, experience and training

I'm well aware of both ANSI and ISO standards

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WILLIAM J. VIGILANTE, JR. for risk -- risk assessment, but I didn't feel the need to specifically reference them in the

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- Q. Are you citing to any particular ISO standard that Medtronic did not comply with in assessing the risk and hazard associated with the products at issue here?
- A. I did not cite an ISO standard in my report.
- Q. Have you told me today and what's contained in your report -- well, strike that.

What's contained in your report, does this contain the sum of your opinions in this case?

- A. As I planned them as of this morning. So I think what I mean by that is, I think we talked about other areas that may not have been discussed specifically in the report. So I do hold whatever we talked about in our deposition today as opinions as well as what's in my report.
- Q. Okay. But you haven't prepared any supplemental report for any additional opinions?

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- A. I have not.
- O. And have you provided all the underlying information for your opinions in your report either in your report or in your testimony today?
 - A. I tried to.

MR. MERRELL: Okay. I don't think I have any further questions.

Do you have any?

MR. HAVERTY: Yeah, I just have a couple just real quickly.

EXAMINATION

BY MR. HAVERTY:

Q. Dr. Vigilante, I don't want to belabor this too much, but we've been here going at this for a few hours now. But could you please give us the benefit -- could you tell us, please, a little bit about the field of human factors involves.

A. Sure. I do address what the field is in my report. But human factors is an applied science. And what I mean by that is that from

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a basic science standpoint, human factors professionals, researchers, conduct research, things related to, for example, how people gather information through their senses, through whether it's sight, hearing, tactile, et cetera.

We look and study how people process information; that is, how they make decisions, how they store information into long-term memory, how information is transitioned into and out of short-term memory. We look at how people's experiences, their attitudes and beliefs, affect how they make decisions and how they perceive risks and so forth.

We also look at what we call physical ergonomics: that is, how the body moves, muscle strength, flexibility. I think I mentioned human gait earlier in the deposition. So these are all different topics that from a basic standpoint human factors professionals study. We take that information that we learn through basic science and we apply it to the design of products and systems.

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So typically, human factors professionals -- for example, when I was with IBM, I would work with engineers, I'd work with designers, whether they're graphic designers, information designers, industrial designers, mechanical engineers, electrical engineers, et cetera, to design products.

So what we're trying to do is apply all of the stuff that we know about how people gather information, how they make decisions, the types of things that cause people to make mistakes or forget things.

We take that information and we apply to design. And the goal is to design systems that are easy to use, that are comfortable to use and that are safe. Essentially, what we want to do is design for human use, and human use includes all of our abilities as well as all of our limitations. So I think that's a general description of the field of human factors.

Q. And you were asked a number of questions about whether or not you had any involvement in these types of design defects --

Page 174 Page 175 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 human factors that you apply to other types of design concepts from a human factors 3 3 perspective as it relates to medical devices; products in this particular case? 4 do you recall that? 4 A. I did. 5 5 A. Yes. MR. HAVERTY: Okay. That's all 6 6 Q. Is there anything that's unique about I have. Thanks. 7 7 medical devices as to opposed to any other 8 8 product that humans might use or interact with EXAMINATION 9 9 that would pose different human factor-type of 10 10 analysis than, say, a computer keyboard or a BY MR. MERRELL: 11 11 cell phone or any other type of product? Q. Do you have any experience in 12 12 A. The basic human factors principles academics teaching human factors principles? 13 A. Other than subbing in for professors 13 and techniques apply regardless of the system 14 14 that were on vacation, I don't think so. I was or the product whether it's a medical device, a 15 15 vehicle, workplace equipment, consumer product, not an associate or adjunct professor like 16 16 that. At undergraduate, I taught research et cetera. 17 methods labs, and I think that's probably the 17 O. These are -- these are broadly 18 extent of my teaching experience. 18 applicable concepts and principles that you 19 Q. Okay. About how many times do you 19 apply across all product lines and subproduct 20 20 think you subbed in for a professor to teach? lines? 21 A. I think it's probably a handful. 21 A. Yes, these are basic human factors 22 O. Have you ever -- do you have any 22 principles and analysis techniques that are 23 experience conducting failure modes and effects 23 applicable to all system and product design. 24 24 analysis for a device, a product? Q. And did you apply those same types of 25 A. I do. I'm sorry? 25 techniques and that same type of methodology in Page 176 Page 177 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 Q. You do? lot of task analysis information related to 3 A. Yes. types of errors and hazards that are a result 4 4 Q. How many times have you put something of those errors are typically fed back into a 5 5 like that together? larger FMEA. 6 A. I don't know. I can't give you a 6 Q. And in this case, you've looked at a 7 7 number. I can tell you my experience at IBM is specific issue with respect to the F-M-E-A and 8 8 that I would be responsible for the total FMEA that's the TBV? 9 9 that was conducted on the products. I would be I'll just say it again. 10 responsible of inputting into the FMEA that was 10 A. Oh, I'm sorry. 11 11 done. Q. In this case, you looked at the 12 12 F-M-E-A or the D-F-M-E-A analysis you've done Q. And I take it, though, you've never 13 done an F-M-E-A for a medical device? 13 in this case is specific to temporary blocked 14 A. Outside of the Dennert and Brackin, I 14 vent? 15 15 A. Yes, my analysis was focused on the have not. 16 16 Q. Have you actually done an F-M-E-A in temporary blocked vent event. 17 17 Q. Did you review the entire D-F-M-E-A this case? 18 A. Well, part of the task analysis gets 18 for the products at issue here? A. I did not. 19 into the failure effect modes analysis. So, 19 20 20 for example, for the failure mode and effects Q. Did you do a full D-F-M-E-A analysis 21 21 analysis you're looking at different aspects of of all potential risks and hazards --22 the design where an error or problem in a 22 A. I did not. 23 23 specific component can result in what type O. -- all those products?

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of -- what type of hazards it can result in and

how it can -- how it could come about. So a

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A. Sorry. I did not.

Q. And you've never conducted that sort

Page 178 Page 179 1 1 WILLIAM J. VIGILANTE, JR. WILLIAM J. VIGILANTE, JR. 2 2 of analysis for a medical device? something unique about a medical device in that 3 3 A. A total? many of them are implanted into the human body 4 Q. Correct. 4 and many of them such as this one are actually 5 5 A. I have not. infusing medication into the human body? 6 Q. Your only experience with a D-F-M-E-A 6 A. I agree that medical devices can --7 7 in litigation in this case and then the Dennert some medical devices are implanted in the human 8 8 case? body and some of them infuse drugs into the 9 9 human body. But from a design perspective, A. Well, no. Again, through my work 10 10 with IBM, it was part of my responsibilities to there's got to be a user involved at some 11 feed into the overall failure modes, effects 11 point, and human factors is studying that user 12 analysis and the other parts of the hazard 12 interaction, so the same principles, basic 13 analysis that were done. 13 principles, analysis apply. 14 Q. But you've never done a D-F-M-E-A for 14 MR. HAVERTY: Okay. No further 15 a medical device or any sort of analysis like 15 questions. 16 that outside of your work in litigation of the 16 17 Dennert case and the Brackin case? 17 EXAMINATION 18 A. Not that I'm aware of. 18 19 O. You mentioned that a medical device 19 BY MR. HAVERTY: 20 isn't really any -- there's nothing unique 20 Q. Just real quickly. 21 about a medical device compared to other 21 Dr. Vigilante, you were asked 22 potential products for assessing from a human 22 questions about failure modes and effect 23 factors perspective; is that about right? 23 analysis. Again, are the concepts of how to --24 A. Correct. 24 how to do a failure mode and effects analysis 25 Q. Wouldn't you agree that there is 25 general concepts that are applicable across all Page 181 Page 180 1 WILLIAM J. VIGILANTE, JR. 1 WILLIAM J. VIGILANTE, JR. 2 2 types of products? done. 3 3 A. Yes. THE VIDEOGRAPHER: This ends DVD 4 4 Q. And it's not -- there's nothing number four. The video time is now 2:49. 5 specific or unique about a failure modes and 5 This ends the deposition today. We are 6 6 now going off record. effects analysis as it applies to a medical 7 7 THE COURT REPORTER: Can you device as opposed to an automobile or any other 8 8 type of product, right? confirm for the record that you want a 9 9 A. No. rough draft and a regular final. 10 10 MR. HAVERTY: Yes, please. MR. HAVERTY: Okay. 11 11 THE COURT REPORTER: And you 12 want a rough draft and immediate final. 12 EXAMINATION 13 13 MR. MERRELL: Yes, thanks. 14 14 BY MR. MERRELL: 15 15 Q. Do you know what ISO standards apply (Whereupon, the deposition 16 16 to a failure modes and effects analysis for a was concluded at 2:47 p.m.) 17 17 medical device? 18 A. Not offhand. 18 19 19 Q. Are you aware of any unique ISO 2.0 2.0 standards with respect to the failure modes and 21 effects analysis for a medical device? 21 22 A. Not offhand. 22 23 23 MR. MERRELL: Okay. No further 24 24 questions. 25 25 MR. HAVERTY: That's all. We're

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INDLX	CERTIFICATE
WIINESS. INCL	THEREBI CERTII I that the
4 WILLIAM J. VIGILANTE, JR. 5 BY MR MERRELI 4 175 180	proceedings, evidence and objections are
BT WIK. WILKKELL 4,173,160	contained fairly and accurately in the
6 BY MR. HAVERTY 171,179	stenographic notes taken by the apon the
	deposition of William 3. Violet in Vie.
LAHIBIIS	taken on september 14, 2010 and that this
NUMBER DESCRIPTION TAG	is a true and correct transcript of same.
Exhibit 1 Notice of Videotape 0	10 Dated: September 14, 2018
11 Deposition 12 Exhibit 2 CD 9	12
13 Exhibit 3 Curriculum Vitae 10	13
14 Exhibit 4 July 31, 2018 Letter 23	Jennifer Miller, RPR and
15 Exhibit 5 Expert Report 28	15 Notary Public
¹⁶ Exhibit 6 Getting Started Guide 120	16
Exhibit 7 Pre-Pump Training 141	17
18 Checklist	18
¹⁹ Exhibit 8 Pump Start Training 141	19
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